MODEL:RSH-1151

ROLL LAMINATOR
Service Manual

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1. Safety Precautions

Failure to comply any of the following safety procedures could result in serious injury. Please read the instructions carefully and keep for future reference.

1. Only a licensed electrician should install wiring and outlet for the laminator.
2. Ensure the unit is plugged into a properly grounded outlet with the correct voltage.
3. Keep hands and clothing (ie.Neckties)away from rollers. The rollers are pinch points that can trap body parts or clothing and cause serious injury .
4. Keep flammable and wet objects away from the machine .
5. Place machine on a sturdy and level surface.
6. Avoid excessive sunlight, humidity and extreme temperatures.
7. Ensure the unit is turned off, cooled ,and unplugged from the outlet prior to moving and/or repairing.
8. Keep out of reach of children.
9. Only Royal Sovereign authorized maintenance and service technicians should make repairs.
10. Do not attempt to laminate items that exceed total recommended material thickness for the unit.
11. When cleaning the machine, don't use flammable sprays or materials.
12. Do not touch the rollers when they are hot or place foreign objects inside the machine.
13. Do not cover the surface of the machine until the machine has completely cooled.

2. Troubleshooting

Note: While repairing:

- ***a. Make sure the power plug is unplugged from the power outlet.***
- ***b. Open both side covers and rear cover.***
- ***c. Be sure to follow the steps below in order.***

2.1 Rollers Not Heating

CAUSES:

1. **Improper laminating mode.**
2. **Heating wire is not connected to the main PCB.**
3. **Blown (burnt) upper and/or lower wire fuse (T/Fuse).**
4. **Defective Bi-Metal.**
5. **Defective heater.**
6. **Defective Main PCB.**

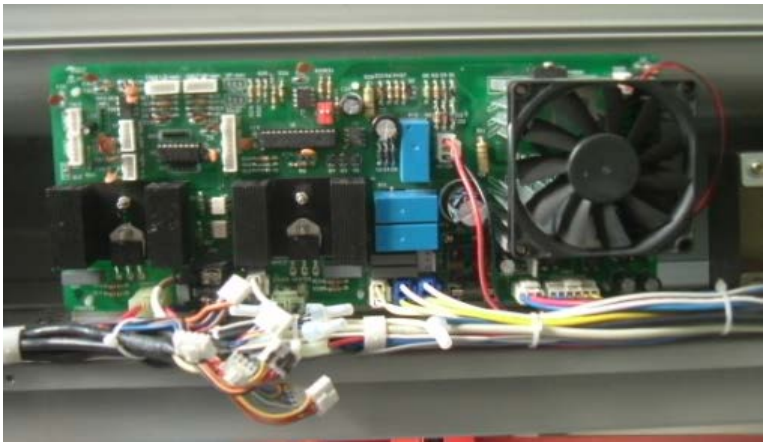
MEASURE

1. Improper laminating mode.

a. Ensure that the laminating mode is in the “Hot” mode, not the “Cold” mode. Press “C/HOT” button on the control panel to change the mode.

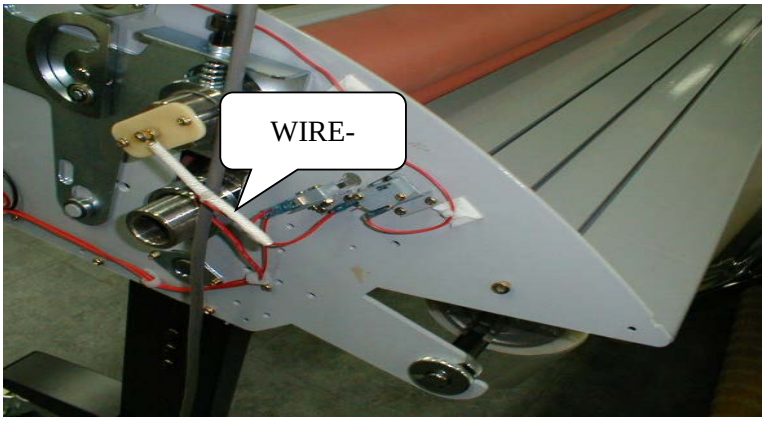
2. Heating wire is not connected to the main PCB.

a. Connect the upper and lower heating wires to the main PCB.



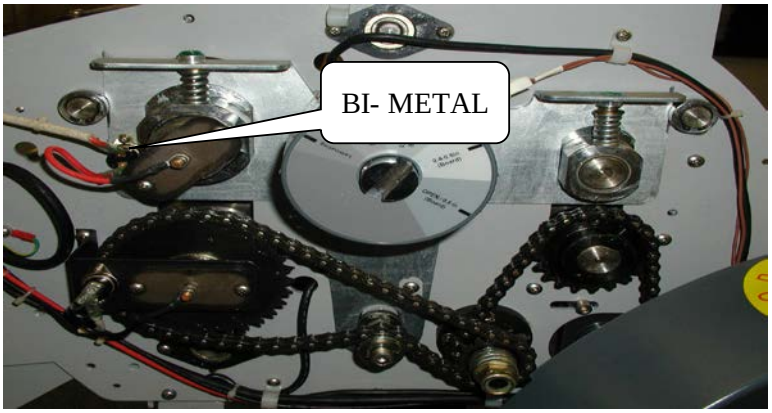
3. Blown (burnt) upper and/or lower wire fuse (T/Fuse).

a. Replace the T/Fuse wire located on the left-hand side.



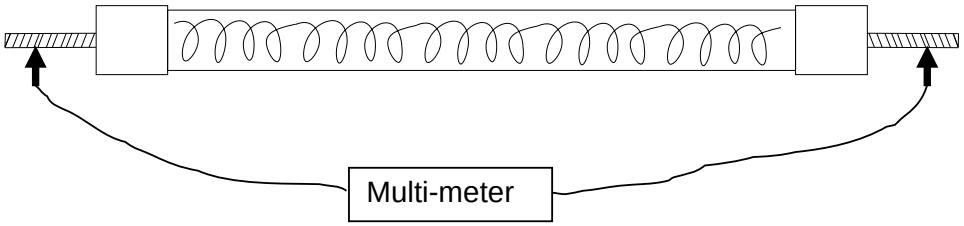
4. Defective Bi-Metal.

a. Replace the Bi-Metal

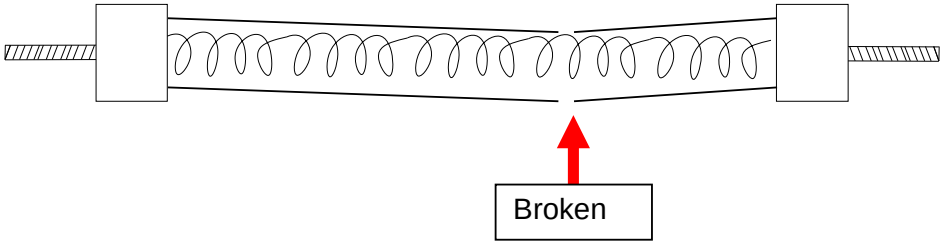


5. Defective heater.

a. Using the multi-meter, test the continuity of the heater. If it fails, replace the heater.



b. Physically examine the heater assembly for breakage.



6. Defective Main PCB.

a. Replace the PCB Main.

2.2) Rollers Over Heating

CAUSES

1. Lower and upper heat sensors are reversed on the PCB Main.

2. Defective T/Fuse wire.

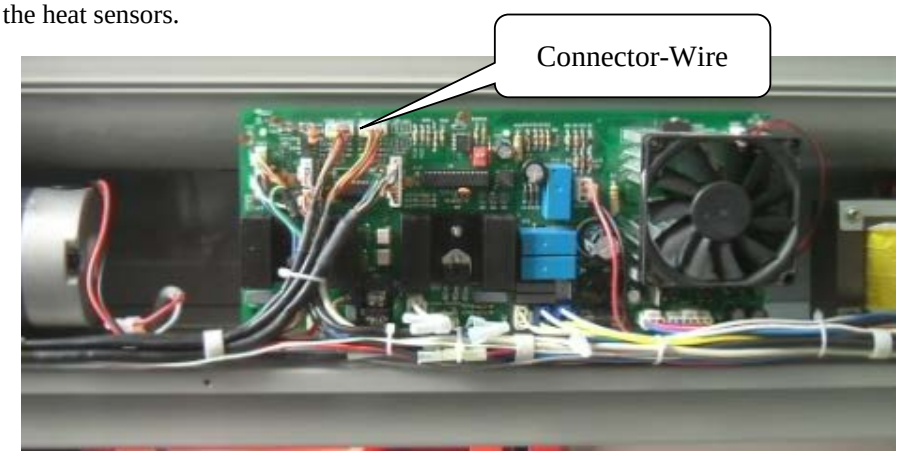
3. Defective heater.

4. Defective main PCB.

MEASURES

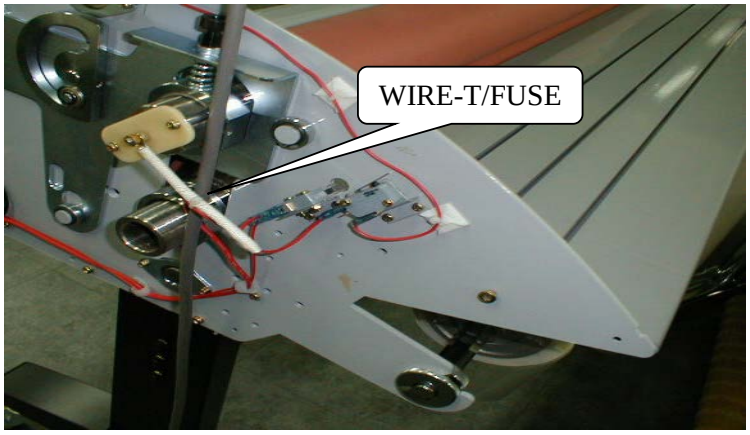
1. Wires for lower and upper heat sensors are reversed on the main PCB.

a. Reverse the heat sensors.



2. Defective T/Fuse wire.

a. Replace the T/Fuse wire located on the left-hand side.



3. Defective heater.

a. Test continuity of the heater. If it fails, replace the heater.

b. Glass tube that surrounds heating coil is broken – replace the heating element.

4. Defective Main PCB.

a. Replace the PCB Main.

2.3) Rollers Not Running

CAUSES

1. **No power to the unit.**
2. **Emergency switch is engaged.**
3. **Disengaged Paper Guide switch.**
4. **Opened safety cover.**
5. **Opened Front Table Switch.**
6. **Film is jammed on the rollers.**
7. **Disconnected motor wire.**
8. **Blown motor fuse.**
9. **Defective main motor.**
10. **Defective main PCB.**

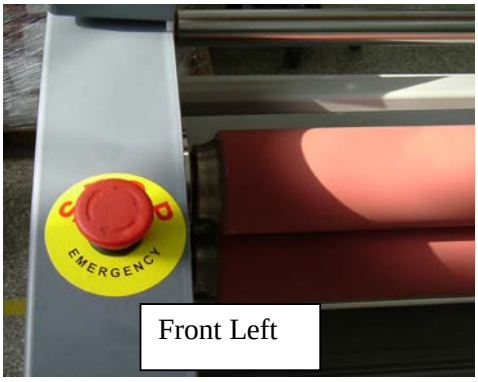
MEASURES

1. No power to the unit.

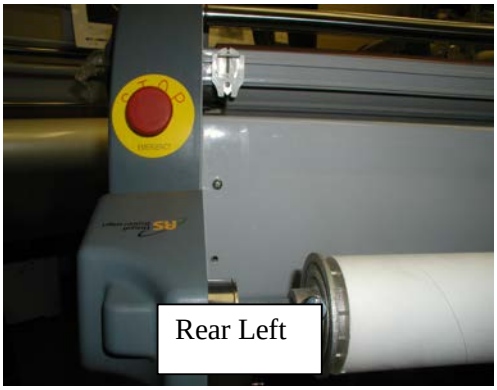
a. Make sure the power plug is connected to the proper source of outlet (220V, 15Amp, & single phase).

2. Emergency switch is engaged.

a. Disengage the emergency switches located on the front and on the rear of the machine by rotating the knob clock-wise.

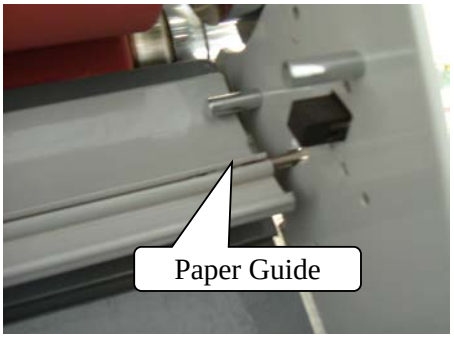


Front Left


Rear Left

3. Disengaged Paper Guide switch.

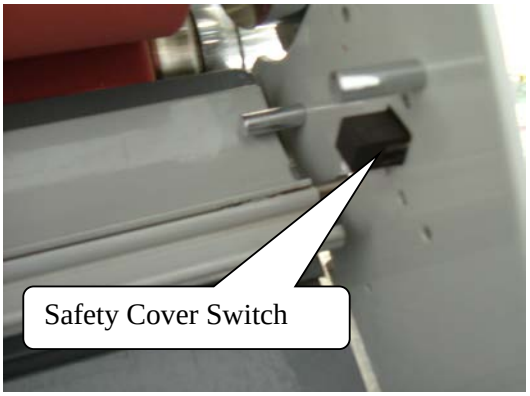
a. Properly position the paper guide to engage the switch.

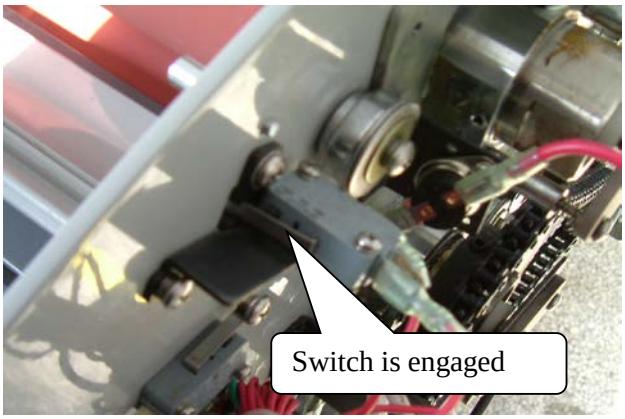

Paper Guide

4. Opened safety cover.

a. Close the safety cover and double check to insure that the safety cover switch is engaged.

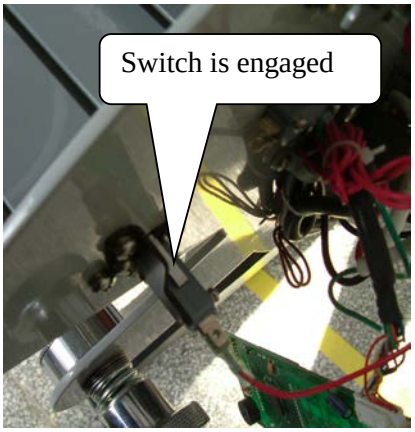
Note: By closing the safety cover, it engages the safety cover switch.





4. Opened Front Table Switch.

a. Properly position the front table to engage the switch.

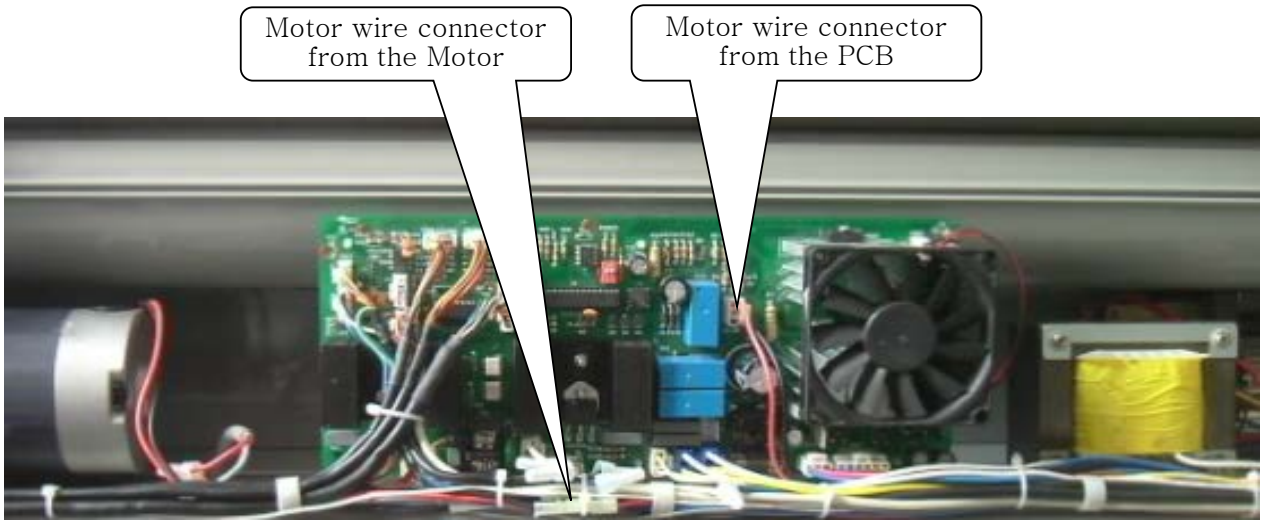


5. Film is jammed on the rollers.

a. Un-jam the film using a combination of the pressure lever and reverse button.

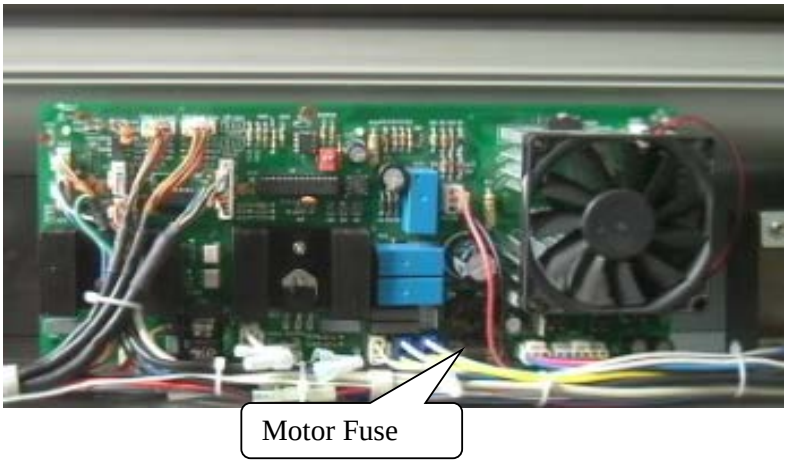
6. Disconnected motor wire.

a. Check the motor wire connection in both locations.



7. Blown motor fuse.

a. Replace the motor fuse located above the main power switch.



8. Defective main motor.

a. Replace the main motor.

9. Defective main PCB.

a. Replace the main PCB.

2.4) No Main Power

CAUSES

1. **No electricity.**
2. **Blown main fuse.**
3. **Disconnected main power wires.**
4. **Defective transformer.**

MEASURES

1. No Electricity.

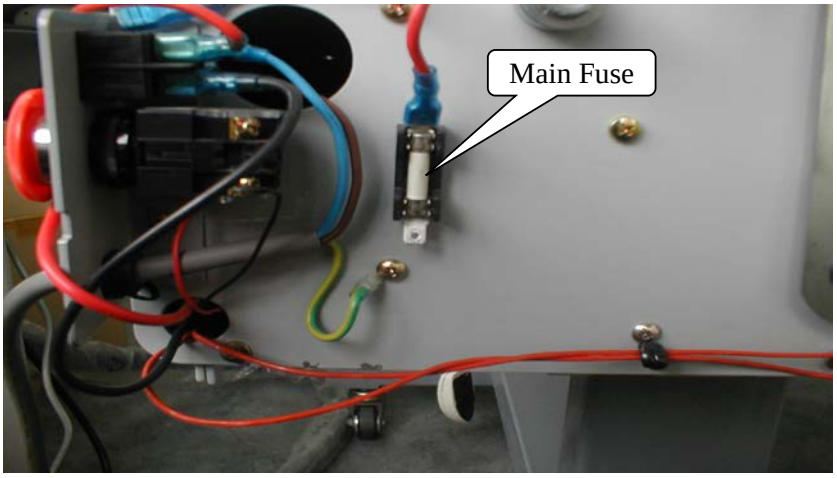
a. Double check to insure that you have electricity from your outlet.

b. Check the circuit breaker.

c. Double check that source of power is 220V, 15Amp, and single phase.

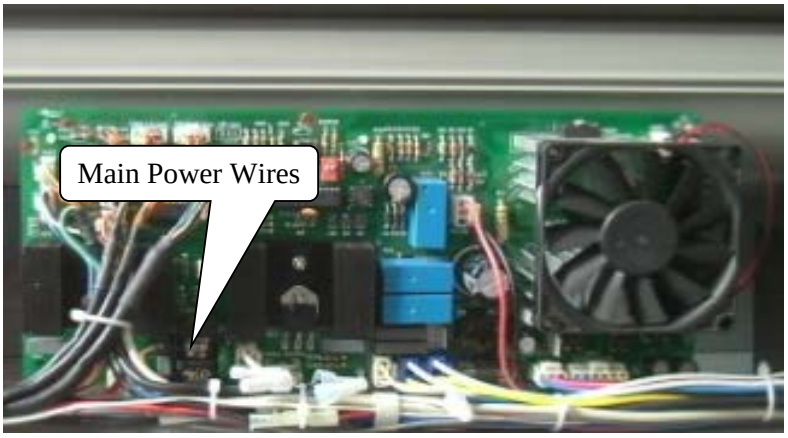
2. Blown main fuse.

a. Replace the main fuse located above the main power switch.



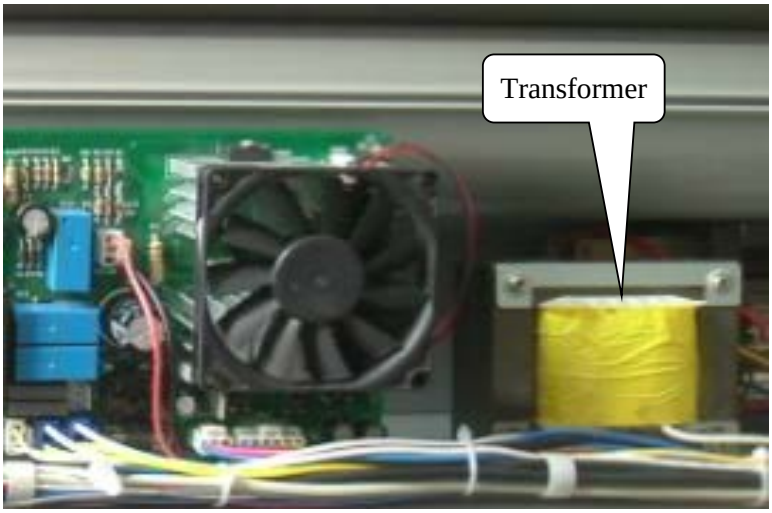
3. Disconnected main power wires.

a. Check that the main power wires are properly connected.



4. Transformer is defective

a. Replace the transformer.



2.5) Count Sensor Not Working.(Option)

CAUSES

1. The optical fiber cable is not connected with optical fiber AMP.

2. The upper sensor is aligned properly with lower sensor.

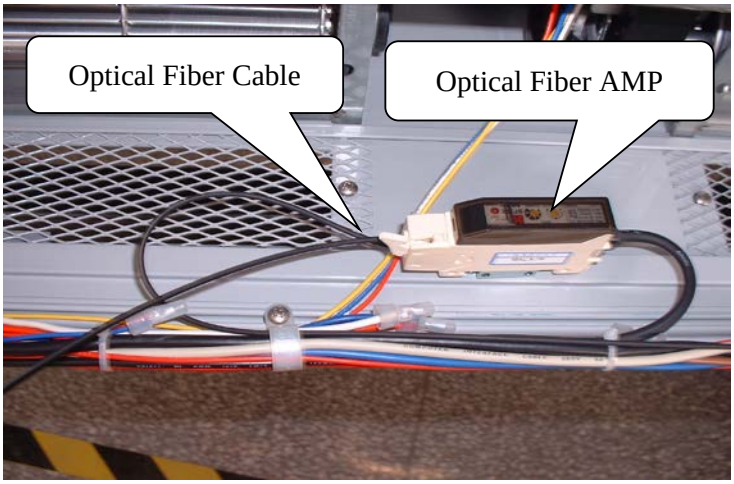
3. The counter wires are not connected on the Main PCB.

4. Main PCB is defective.

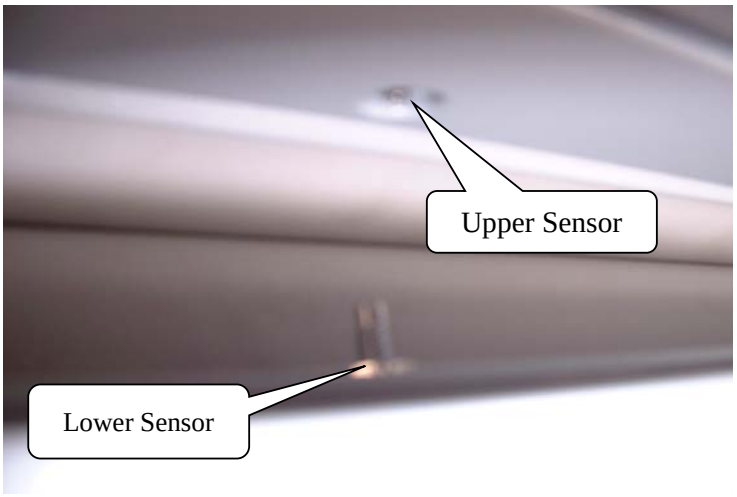
5. The count needs adjustment.

MEASURES

1. The optical fiber cable is not connected with optical fiber AMP.

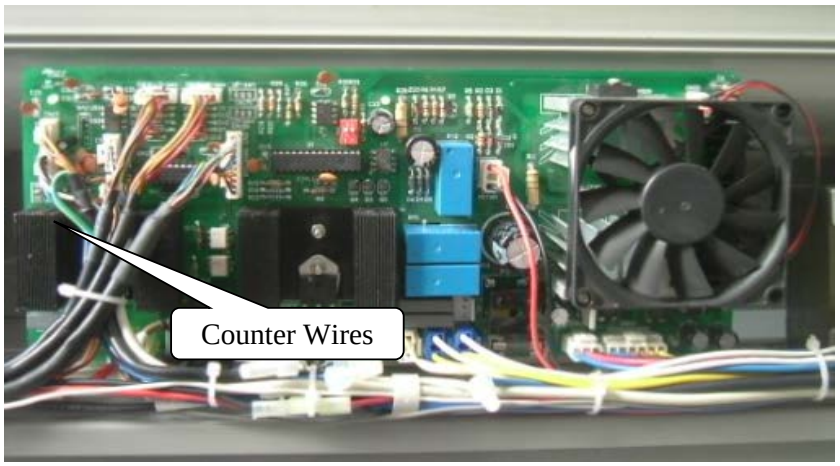


2. The upper sensor is aligned properly with lower sensor.



3. The counter wires are not connected on the Main PCB.

a. Ensure that the counter wires are connected to the Main PCB.

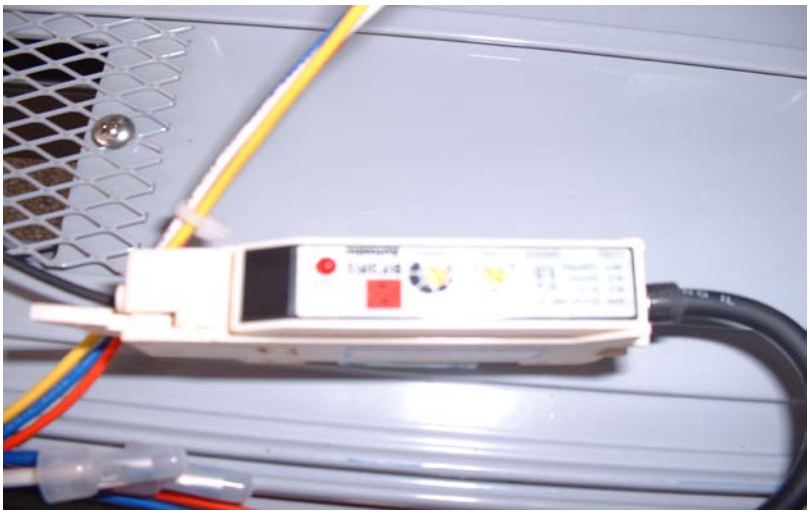


4. Main PCB is defective.

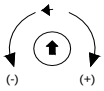
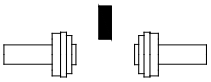
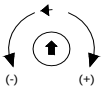
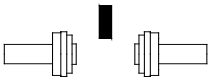
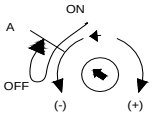
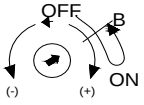
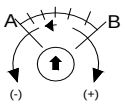
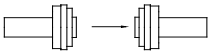
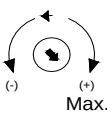
a. Replace the Main PCB.

5. The count needs adjustment.

a. Please see below for adjustments.



Adjusting the Counter Sensor

NO.	Throught beam	Adjusting	VR	
			Coarse	Fine
1	Initial setting	Fix VR(Coarse) at ON position with turning right slowly when it is the status of the recviced light.		
2	Received light 	Fix VR(Coarse) at ON position with turning right slowly when it is the status of the recviced light.		
3	Received light 	Turning VR(Fine) until it is OFF toward(-),and turning until it is ON toward(+) again ,then confirm that this will be A position.	Coarse VR is not required to adjust afterwards.	
4	Interrupted light	And then turning VR(Fine) until it is ON toward(+),and turning until it is OFF toward(-) again in state of shading light.Then confirm that this position will be B position.(when it will not be ON.max. position will be B.		
5		Fix it at middle of A and B position. This will be the best position to set.		
6	Received light 	If it cannot adjust as above method. set VR(Fine) at max. position toward(+),then execute again.		

3. Replacing Parts

Note: While replacing parts:

a. Make sure the power plug is unplugged from the power outlet.

b. Open both side covers and rear cover.

3.1 Replacing the Right Cover.

a. Take out the pressure lever (Figure 1) and four cover screws using Phillips screw driver (Figure 2).

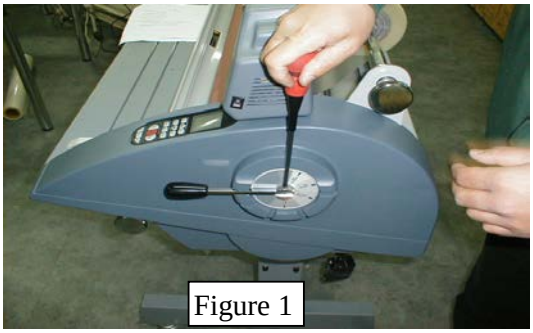


Figure 1

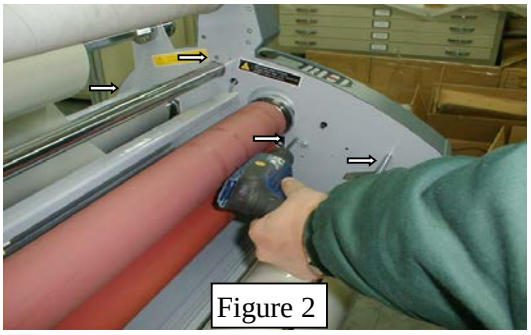


Figure 2

b. Pull out the male control panel connector from the Sub-PCB. Figure 3

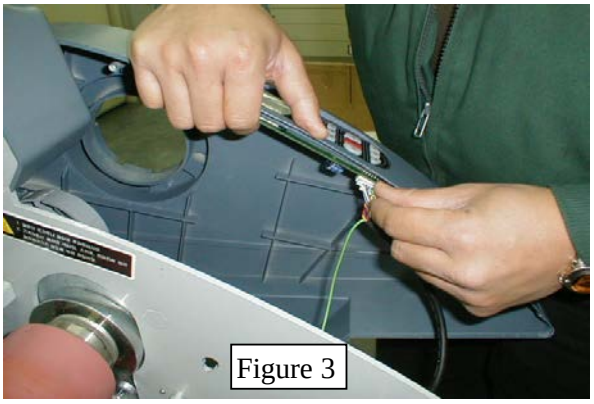


Figure 3

c. Loosen two screws from Sub-PCB and install on to new Right Cover. Figure 4

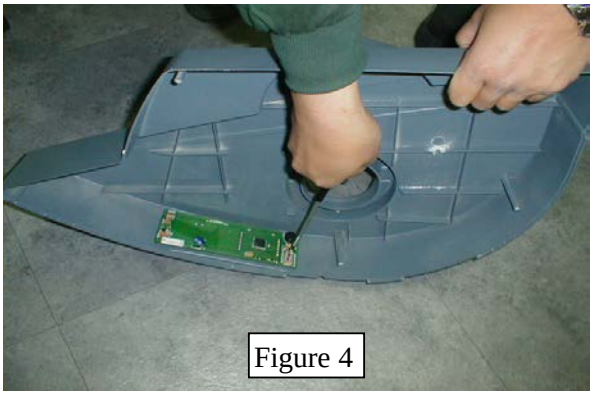


Figure 4

d. Follow the reverse order to assemble the Right Cover back.

3.2 Replacing the Left Cover

a. Replace the Left Cover by loosening four Left Cover screws.

3.3 Replacing Rear Cover

a. Take off the left and right covers.

b. Take out the seven screws from the back cover. Figure 5

c. Carefully slightly lift up the cover and slowly pull towards you. Figure 6

(Note: The Counter Sensor Wire is attached to the cover).(Option)

d. Open the Paper Counter latch and pull the black wire from the paper counter sensor to detach from the unit.(Option)

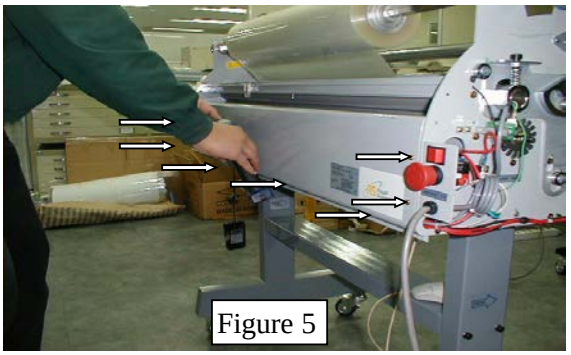


Figure 5

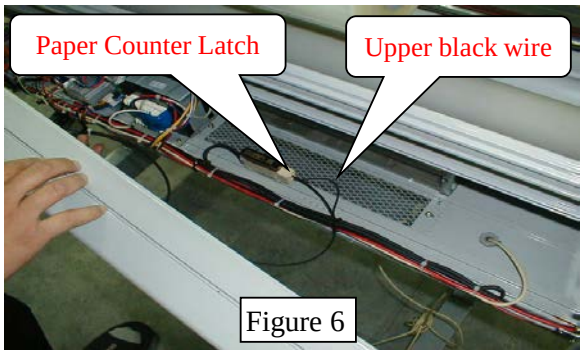


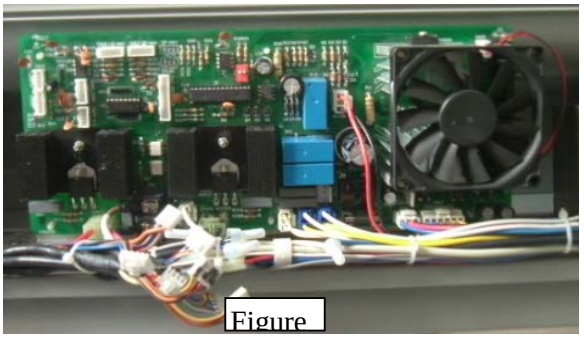
Figure 6

3.4 Replacing the Main PCB

a. Remove the rear cover and label all the wires before unplugging from the Main PCB.

b. Detach the Main PCB from 6 white plastic holders. Figure 7

c. Replace the board with new PCB and connect all the wires.



Figure

3.5 Replacing the Sub-PCB

a. Refer to “Replacing Right Cover”.

3.6 Replacing the Heaters

Note: Cotton or surgical gloves are recommended while handling the heater assembly.

a. Disassemble Right and Left Covers (Refer to "**Replacing Right Cover**" and "**Replacing Left Cover**").

b. Take out the heater brackets on each side by loosening the nuts and screws (Figure 8, 9, & 10).

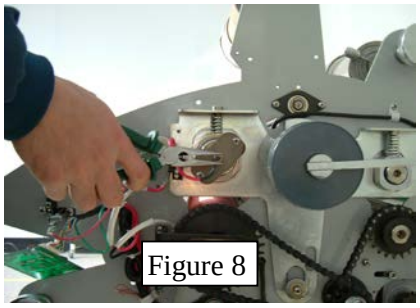


Figure 8

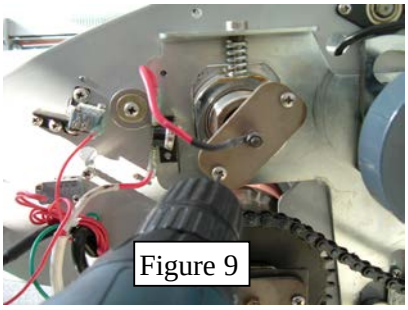


Figure 9

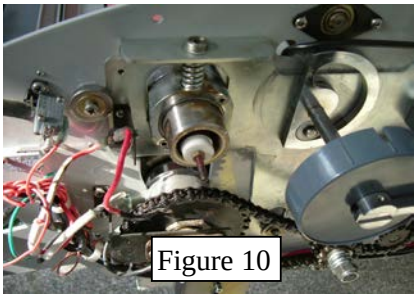


Figure 10

c. Take out the broken heater. Figure 11

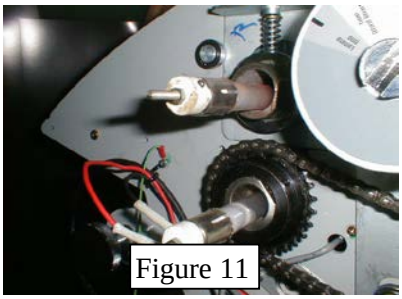


Figure 11

Note:

a. When inserting the heater into the roller, rotate the heater slightly and push the rod in gently.

b. Use an air blower to blow out the broken pieces of heating rod.

(Please ensure that no one is standing on the other side.)

3.7 Replacing the Cross Cutter

a. Disassemble the nut from the Frame-Cutter.

b. Unfasten the spring from the cutter.

c. Change the Cutter.

d. Assemble the Cutter by reversing the above steps.

4. Adjustments

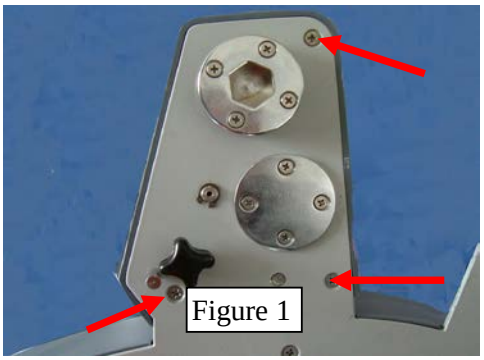
4.1 Adjusting Take-up Shaft Speed

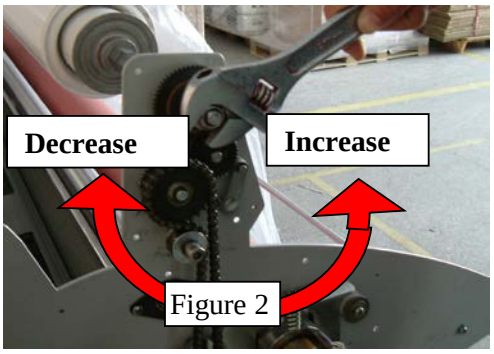
CAUSES:

1.Main rollers and take-up shaft speed is not synchronized.

MEASURES:

1. Take off the take up motor cover. Figure 1
2. Loosen (increases speed) or tighten (reduces speed) the bolt using 11/16" or 17mm wrench.
   Note: Loosen three screws as shown in Figure 1 to get to the adjustable take-up shaft speed bolt. Figure 2

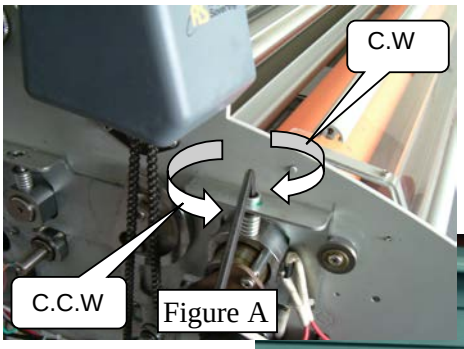




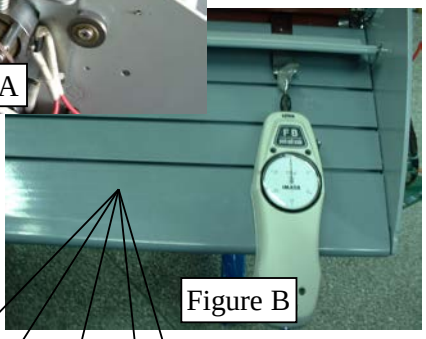
4.2 Adjusting Front and Rear Rollers

Pressure

• ***Use 5/16" or 8mm Allen wrench*** **to adjust the roller pressure:**
C.W – Increase pressure.
C.C.W – Decrease pressure.



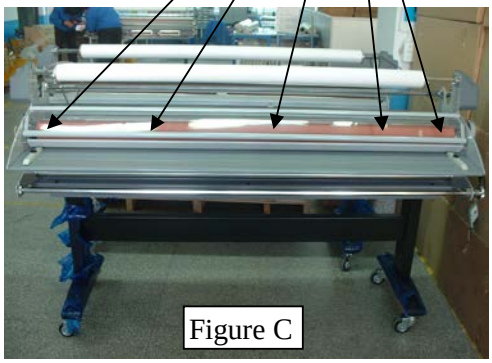
1.*Using Push-Pull Scale* , measure 5 spots as shown on Figure B &C: Front roller should be 2~3 on Guage



when the machine is running, check that the top and the bottom films are fed in without any wrinkles.

3.Laminating Test – Laminate samples with different thickness of substrates.

4.Check above steps 2 through 3 with 1.5mil & 5mil films.



5. Installing Options

Note:

These options are to be installed by an authorized RS reseller.

1. Installing the Front Feeder

a. Install the Left and Right Front Feed option on the inside of the front frames using four 9/16” hexagon bolts on each side. Figure 1

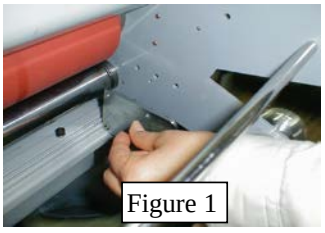


Figure 1

2. Installing the Rear Rewinder

a. Remove the left and right covers by using a Phillips screwdriver (four screws on each side cover) (Figures 2 & 3).

Figure 2

Figure 3

b. Remove the lever knob screw and lever (Figure 4).

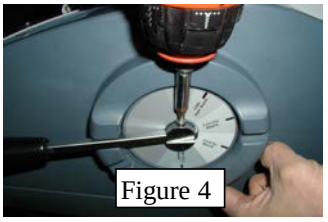


Figure 4

c. Remove the rear cover by removing all 10 screws (4 top, 4 bottom, and 1 on each side) (Figure 5 & 6).

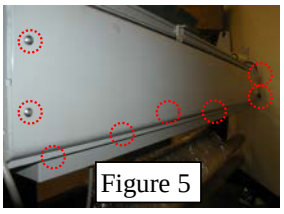


Figure 5

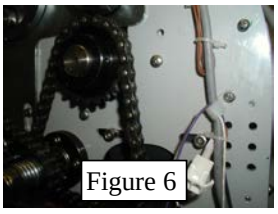


Figure 6

d. Disassemble the power switch bracket and place the left rewinder outside of the frame; fasten with round head 5/16 (9mm) Phillips screws (included in the option kit). Then, reinstall the power switch bracket (Figure 7).

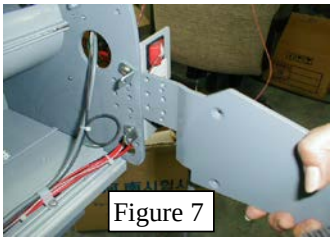


Figure 7

e. Install the right rewind on the outside of the frame and connect the motor wire connection to rear wire (Figures 8 & 9).

f. Reinstall the rear cover.

g. Reinstall the side covers.

h. Reinstall the lever knob and screw.

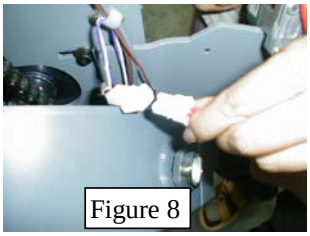


Figure 8

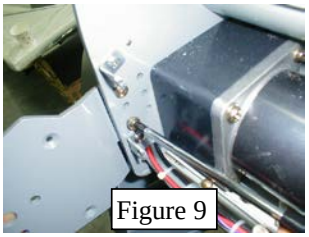


Figure 9

SVC Parts List

RSH-1151

No.	Part No.	Part Name	Spec.	CHANGING REMARK	
				P NO.	DATE
1	13500X001A	CASTER-STAND1	20-30S-SBB-TG KYUNG CHANG		
2	13500X002A	CASTER-STAND2	20-30S-SBB-TG KYUNG CHANG		
3	WSB16038D0	WASHER-SPRING	SWRH φ16.2*3.8T FZY		
				WSB16038D2	20091016
4	212LR1004A	STAND-BASE	STKR 120*50*2T,SPCC		
5	212LR1007A	STAND-SIDE	120*50*516		
6	212LR1006A	STAND-CENTER	120*50*980*10T		
7	BHE08012D2	BOLT	HEXAHEAD M8*12 SUS27 (不锈钢)		
8	WSB08020D2	WASHER-SPRING	SWRH φ8*2T SUS27		
9	BHE08065D2	BOLT	HEXA HEAD M8*65 SUS27		
10	013LR3031A	FRAME-BASE	AL6063		
11	BHE06020D2	BOLT	HEXAHEAD M6*20 SUS27		
12	WSB06015D2	WASHER-SPRING	P ID6x15T SUS27		
13	211003005B	BLOWER-ASS'Y	AC 230V JE-06030A23		
14	MBC04008D2	SCREW BH	M4*8 SUS27		
15	WSB04010D2	WASHER-SPRING	SWRH Φ4*1.0T SUS27		
16	141LR3001B	BRACKET-PCB	SECC T=1.6 ZWP5		
17	23200X001A	SUPPORT-BRACKET PCB	DASS-9N TENSION DONG-A,6/6 尼龙		
18	350LR3036J	PCB-MAIN ASS'Y	FR-4 ROHS		
19	34000S008A	POWER TRANSFORMER	AC 120V/230V 50/60Hz,S1 24V/5A		
20	MBC04010D2	SCREW-BH	M4x10 SUS27 不锈钢		
21	214LR3003B	MESH-FRAME,F	SUS342*62		
22	MBC04006D2	SCREW BH	M4x6 SUS27		
23	013LR2036A	FRAME-L	SPCC 4.5T PANTONE 421U		
24	141LR4007A	BRACKET-SWITCH,EU	SPCC T=2 PANTONE 420U		
				141LR4007D	20091208
25	36400X002A	SWITCH-MAIN			
				36400X002B	20060116
26	23300X001A	BUSHING-CORD,EU	EU 7NR32 DONG-A		
27	380CR4005A	POWER CORD CUL	AC125V 15A		
27-1	380LR4001A	POWER CORD EU,UNIB,TOSI	AC250V 15A		
27-2	380LR4003A	POWER CORD AU	AC250V 15A		
27-3	380LR4007A	POWER CORD UK	AC250V 13A		
28	36600X002A	FUSE BLOCK	15A/250V AC/FUSE ϕ6.4*30		
29	MFC04008D2	SCREW FH	M4x8 SUS27		
30	32500X0007	FUSE MAIN			
				32500X0005	20061217
31	013LR2037A	FRAME-R	SPCC 4.5T PANTONE 421U		
32	MBC05030D2	SCREW BH	M5x30 SUS27 不锈钢		
33	WSB05013D2	WASHER-SPRING	SWRH Φ5.1x1.3T SUS27		
34	013LR2009D	FRAME-FRONT	AL6063		
35	MFC05018D2	SCREW FH	M5*18 SUS27		
36	141LR4036A	BRACKET-SENSOR	SECC T=1.5 脱脂		
37	021LR3003A	CASE-SENSOR,UP	材质:耐燃 ABS		
38	021LR3004A	CASE-SENSOR,LO	材质: 耐燃 ABS		
~~39~~	~~313LR3001A~~	~~SENSOR-ASS'Y~~			
				313LR3002A	20061019
40	381LR4027F	WIRE SENSOR			
					20061019
41	MBC04018D2	SCREW BH	M4x18 SUS27		
42	013LR2038A	FRAME-CENTER	AL6063		
43	MBC05018D2	SCREW BH	M5x18 SUS27		

44	013LR2012D	FRAME-SENSOR	AL6063		
45	MFC04018D2	SCREW FH	M4x18 SUS27		
46	013LR3002F	FRAME-CUTTER	AL6063		
47	023LR3003A	KNOB-CUTTER,C	ABS 94-V0 AF-312 PANTONE 420U		
48	140LR3001A	HOLDER-CUTTER,C	ABS 94-V0 AF-312 PANTONE 420U		
49	213LR4001A	CUTTER-CROSS	STS420J2 1T		
50	138LR4001A	SPRING-CROSS,CUTTER	SWRH φ0.3 ZWP5		
51	NHB03024D2	NUT	M3 SUS27		
52	MPC03006D2	SCREW PH	M3*6 SUS27(不锈钢)		
53	015LR3007A	BAR-IDLE	Φ30*1231		
54	12200X032A	DU BUSH	FLANGE Φ12*10		
55	141LR4050A	PLATE-BEARING	SECC 2T ZWP5 发黑		
56	133LR2026A	ROLLER-LAMI	S45C φ80.0 SNC3		
57	122LR4008A	BUSH-ROLLER,LAMI LO			
				122LR4022A	20040813
58	12200X012A	DU BUSH	FLANGE 40*25		
				12200X043A	20091201
~~59~~	~~12200X014A~~	~~DU BUSH~~			20091201
60	131LR4005A	SPROCKET-ROLLER,LAMI	S45C Φ87 27T(45钢 表面发黑)		
61	SKE06010B6	SCREW-SET	M6*10 FZB		
62	SKE06015B6	SCREW-SET	M6*15 FZB		
63	130LR4008A	GEAR-TAKE UP ROLLER	ϕ61.35*14*28T		
64	SKE04010B6	SCREW-SET	M4x10 Fe		
65	122LR4007A	BUSH-ROLLER,LAMI UP	S45C Cu+Ni+Cr		
66	133LR2027A	ROLLER-PULL,LO	S45C φ60.0 SNC3		
67	122LR4010A	BUSH-ROLLER,PULL LO	S45C Cu+Ni+Cr		
68	12200X013A	DU BUSH	ϕ25*25 FLANGE		
~~69~~	~~131LR4006A~~	~~SPROCKET-ROLLER,PULL~~			
				131LR4015A	20081104
70	SKE04015B6	SCREW-SET	M4*15 FZB		
71	133LR2028A	ROLLER-PULL,UP	S45C φ60.0 SNC3		
72	122LR4009A	BUSH-ROLLER,PULL UP	S45C Cu+Ni+Cr		
~~73~~	~~12200X015A~~	~~DU BUSH~~			20080903
74	120LR3001C	SHAFT-CAM	ϕ12*1328		
75	124LR4002A	CAM-ROLLER	S45C (CU+NI+CR)		
76	144LR4001A	CLAMPER-LEVER	S45C		
77	SKE05015B6	SCREW-SET	M5*15 FZB		
78	SKE05010B6	SCREW-SET	M5*10 FZB		
79	021LR3006A	BRACKET-CLAMPER LEVER	ABS 94V0 AF-312 PANTONE 431U		
80	125LR4003A	LEVER-PRESSURE	S45C (CU+NI+CR)		
81	023LR4001A	KNOB-LEVER			
				023LR4007A	20051124
				023LR4010A	20060928
~~82~~	~~032LR4011A~~	~~SHEET-PRESSURE,CUL~~	~~PC 0.3T~~		20110428
82-1	032LR4010A	SHEET-PRESSURE OTHERS	PC 0.3T		20110428
		SHEET-PRESSURE All			
83	141LR2003A	PLATE-PRESSURE,L	SPCC T=3 ZWP5		
84	122CR4002A	BUSH-CAM	S45C 8*22*7		
85	RC000800C8	SNAP RING	STW-8 WON IL		
86	111LR4014A	BOLT-PRESSURE	M10*12+M6*22 不锈钢		
87	WPB06015D2	WASHER-PLAIN	6.0*18*1.5T SUS27 T=1.5		
88	138LR4008A	SPRING-PRESSURE	SWRH φ3 ZWP5		
90	122LR4004A	BUSH-PLATE PRESSURE	S45C Cu+Ni+Cr		
91	RC001500C8	SNAP RING	STW-15 WON IL		
92	WPB15010D2	WASHER-PLAIN	Φ15.5*28*1.0T SUS27		
93	WPB06015D2	WASHER-PLAIN			
95	141LR2004A	PLATE-PRESSURE,R	SPCC T=3 ZWP5		
96	363LR4001D	BIMETAL-HEATER	15A 100℃		
97	WSB03007D2	WASHER-SPRING	SWRH φ3.1*0.7T SUS27		
98	141LR4055A	BRACKET-BIMETAL	SPCC 60*40*1.5T		

99	223LR2008A	HEATER ASS'Y OTHERS	33Ω OTHERS		
99-1	223LR2008B	HEATER ASS'Y UK	39Ω UK		
99-2	223LR2008C	HEATER ASS'Y JOL	27.6Ω JOL		
100	141LR4010A	BRACKET-HEATER	S45C φ4.6*φ8*34		
101	MBC05010D2	SCREW BH	M5x10 SUS27		
102	141LR4011A	BRACKET-HEATER,STOPPER			
				141LR4112A	20070305
				141LR4011B	20080617
103	NHB05038D2	NUT			
104	MBC04045D2	SCREW BH	M4*45 SUS27(不锈钢)		
105	142LR4001A	SPACER-HEATER,BKT	S45C φ4.6*φ8*34 (表面镀Cu+Ni+Cr)		
106	WPB04008D2	WASHER-PLAIN	P ID4x0.8T SUS27		
107	138LR4014A	SPRING-HEATER	STS-304-WPA φ0.6		
108	21000S029A	MOTOR-MAIN	S9D60-36BH(0A87) 36V 60W 75:1		
109	131LR4004A	SPROCKET-MOTOR	RS35 S45C Φ44 13T(表面发黑)		
110	136LR4004B	CHAIN-ROLLER	#35 P9.525*42 =400.5		
111	136LR4004E	CHAIN-ROLLER			
				136LR4004F	20070818
112	140LR4005A	HOLDER-SLIP	S45C 0.D54 10T ,BEARING #60002		
113	140LR4006A	HOLDER-SLIP(IN)	S45C 0.D54 10T ,BEARING #60002		
115	120LR4003A	SHAFT-SLIP	S45C Φ12 Cu+Ni+Cr		
116	131LR4013A	SPROCKET-SLIP	S45C Φ53*53z		
117	147LR4007A	PAD-SLIP	φ24*φ12.4*4T		
118	131LR4014A	SPROCKET-SLIP IN	S45C Φ44 13T		
120	12200X005A	BEARING-RADIAL TRUST	NTB1226 12*28		
121	138LR4006A	SPRING-SLIP	SWRH φ3.5 ZWP5 (镀白锌)		
122	112004001B	NUT	M12*1.75 SUS27		
123	RC001000C8	SNAP-RING	STW-10 WON IL		
~~124~~	~~141LR4005A~~	~~PLATE-SHAFT,FILM~~	~~SPCC T=2.3 SNC3(表面镀Cr)~~		20091201
125	140LR4002A	HOLDER-SHAFT,T	S45C Cu+Ni+Cr		
				140LR4037A	20091201
126	12200X022A	BEARING-RADIAL TRUST	15*28 防磨型		
127	130CR4002A	GEAR-TAKE UP			
128	147LR4009A	PAD-SLIP	LEATHER φ36*1.5T		
129	141LR4006A	PLATE-SLIP	SECC ϕ36*2T		
~~130~~	~~112004001C~~	~~NUT~~	~~HEXAGON LOCK TYPE NYLON~~		
131	140CR4001A	HOLDER-TAKE,UP 2	SWRH ϕ3.5 ZWP5 (镀白锌)		
~~132~~	~~130CR4001A~~	~~GEAR-MIDDLE~~	~~S45C Φ48*23t/Φ40*40z~~		
133	12200X003A	BEARING	S45C Cr (8.0*22.0*7.0)		
134	122LR4006A	BUSH-PULLEY	S45C Cu+Ni+Cr		
135	134LR4001A	PULLEY-CHAIN	S45C Cu+Ni+Cr		
136	BHE08045D2	BOLT	HEXAHEAD M8*45 SUS27 (不锈钢		
~~137~~	~~140LR4012A~~	~~PULLEY-CHAIN~~			20060510
138	BHE08050D2	BOLT	HEXA HEAD M8*50 SUS27		
~~139~~	~~NHB08050D2~~	~~NUT~~			20060510
140	141LR4051A	GEAR-CAM	40*38*4.5T		
141	130LR4009A	GEAR-TAKE UP MIDDLE	ϕ36*8*34T		
142	12200X035A	DU BUSH	ϕ8*8 FLANGE		
143	141LR4052A	KNOB CAM	SPCC+S45C		
144	RE000600C8	E-RING	ETW-6 SWRH4/FZB		
145	023LR4002A	KNOB-BOLT GUIDE	PHENOL BLK		
146	136CR4001A	CHAIN-TAKE UP			
				136LR4001H	20060813
147	120LR4001E	SHAFT-TABLE	ϕ10*1230		
148	014LR1004A	TABLE-FRONT -OTHERS	AL6063		
148-1	014LR1004C	TABLE-FRONT -AU	AL6063		
149	141LR4043A	FRONT TABLE SAFETY LEVER	SPCC 1.5T		
150	MFC04006D2	SCREW FH	M4x6 SUS27		
151	145LR3001A	GUIDE-DOCUMENT	ABS 94BO AF-312 PANTONE COOL G		
152	111LR4006A	BOLT-GUIDE	S45C SNC3 4*22.5(镀锌)		
153	141LR4045A	BRACKET LIMIT SWITCH	SPCC 2.0T		

				141LR4054A	20101018
154	36400X014A	SWITCH-MICRO SAFETY COVER			
				36400X014B	20060116
155	021LR4001A	LIMIT SWITCH COVER	PP		
156	MBC03014D2	SCREW BH	M3x14 SUS27		
157	013LR2013D	FRAME-GUIDE,PAPER	AL6063 PANTONE 421U(涂层颜色)		
158	111LR4015A	BOLT 1-PAPER GUIDE	S45C M5*27 Cu+Ni+Cr		
159	111LR4016A	BOLT 2-PAPER GUIDE	S45C M5*37 Cu+Ni+Cr		
160	140LR4003A	HOLDER-SAFETY COVER	S45C Cu+Ni+Cr		
161	021LR3005D	SAFETY COVER	SPCC 147*15*2.3T		
162	141LR4022G	BRACKET-SAFETY COVER	AL 6063		
163	141LR4022H	BRACKET-SAFETY COVER	AL 6063		
164	013LR4003A	SAFETY COVER FRAME-R	SPCC PANTONE 421U		
165	111LR4009A	BOLT-SAFETY COVER	S45C Φ10 Cu+Ni+Cr		
166	138LR4010A	SPRING-SAFETY COVER	SWRH φ8.0 ZWP5 (镀白锌)		
167	RE000400C8	E-RING	ETW-4 WON IL		
168	013LR4002A	SAFETY COVER FRAME-L	SPCC PANTONE 421U(涂层颜色灰)		
169	140LR4001A	HOLDER-SHAFT,FILM	S45C Cu+Ni+Cr		
				140LR4036A	20091201
170	147LR4002A	PAD-TENSION	LEATER 1.5T		
171	138LR4002A	SPRING-FILM,TENSION	SWRH φ3.8 ZWP5		
172	125LR4001A	HANDLE-TENSION	S45C Cu+Ni+Cr		
				125LR4015A	20100327
173	120LR3004D	SHAFT-FILM,LO	六棱榜 19*1237.7		
174	143CR4001A	SUPPOTER-SHAFT,LO			
				143LR3001A	20091209
175	12200X009A	DU BUSH	FLANGE Φ15*20		
176	013LR3022A	FILM CORE HOUSING 2"	AL6063 0.3 KG		
177	021LR3008A	2" FILM CORE COVER	ABS		
178	MBC04025D2	SCREW BH	M4*25 SUS27		
179	147CR4003A	SILICON ELASTIC	SILICON 7*160 HS60		
180	120LR4002E	SHAFT-TAKE,UP	六棱棒 19*1233.7		
181	013LR3023A	FILM CORE HOUSING 3"	AL6063 0.4 KG		
182	021LR3009A	3" FILM CORE COVER	ABS		
184	011LR2006A	COVER-REAR	AL6063		
185	141LR4009A	BRACKET-REAR COVER	SECC 2T 发黑		
186	021LR2001C	COVER-L	ABS		
187	032LR4008A	SHEET-CUTTER	PC 0.3T		
188	36400X001A	SWITCH-EMERGENCY	#N/A		
				36400X018A	20080115
189	TFH04035D2	SCREW FH	2-4*35 SUS27(不锈钢)		
190	021LR2003E	COVER-TAKE UP,L	ABS		
191	TFH04018D2	SCREW FH	2-4*18 SUS27		
192	021LR2002A	COVER-R	ABS PA-765 UL94 V-0 PANTON 431		
193	032LR3004A	SHEET-FUNC			
194	023LR3006A	BUTTON-FUNC			
195	350LR3022A	PCB-SUB ASS'Y	FR-4		
196	TPH03006D2	SCREW TAP TITE PH			
				TPH03006B8	20080617
197	021LR2004B	COVER-TAKE UP,R	ABS 94V0 PANTONE 431C RS		
198	365LR4003A	SWITCH-FOOT ASS'Y			
				365LR4004A	20070402
199	23300X008A	CABLE-GRAND	PG-7 DONG-A		
200	010LR4001A	ENCODER-LENGTH SENSOR,A			
201	141LR4023A	BRACKET-SENSOR PCB			
202	350LR4002A	PCB-LENGTH ASS'Y			
203	141LR4024A	BRACKET-ENCODER			
204	140LR4007A	HOLDER-SENSOR COUNT			
205	31400S001A	OPTICAL FIBER CABLE			
206	31300S002A	OPTICAL FIBER AMP			
207	24000X003A	TAPE-TEFLON			
208	381LR4043A	WIRE-SAFETY S/W	UL1015 AWG#14 IP BLK		

~~209~~	~~381LR4083A~~	~~WIRE-EMER~~			
				381LR4047D	20060104
				381LR4083D	20080617
210	381LR4020B	WIRE-FUSE	UL1015 AWG#14		
211	381LR4035D	WIRE-MOTOR	UL1007AWG#18 BLK/RED		
212	381LR4013G	WIRE-POWER S/W	UL1015 AWG#14BRN/BLU		
213	381LR4045D	WIRE-LENGTH			
~~214~~	~~381LR4042D~~	~~WIRE-EMER2~~			20060104
215	381LR4030C	WIRE-UP HEATER	TEFTON WIRE 018/50 RED		
216	381LR4029C	WIRE-LO HEATER	TEFRON WIRE 018/50 BLK		
217	381LR4044A	WIRE-MAIN	2464 26AWG 5PAIR 10C SB		
218	381LR4046A	WIRE-COUNT			
219	381LR4036A	WIRE-T/FUSE UP	142度 UL1015 AWG#14 RED		
220	381LR4037A	WIRE-T/FUSE LOW	142度 UL1015 AWG#14 BLK		
221	381LR4054A	WIRE-LO HEATER 2	UL1015 AWG#14 RED		
222	381LR4055A	WIRE-UP HEATER 2	UL1015 AWG#14 RED		
223	025LR4001A	CASE-REMOCON ASS'Y	TOP/BASE/KNOB/SCREW RS		
224	350CR4001A	PCB-REMOCON ASS'Y	FR-4/ZHAOYUAN JINBAO CO,LTD		
225	381LR4032A	WIRE-REMOTE	2464 24AWG6C		
226	013LR3012B	FRAME-REWINDER,L	SPCC4.5T		
227	013LR3011B	FRAME-REWINDER,R	SPCC4.5T		
228	130LR4005A	GEAR-TAKE UP	S45C Φ40*40z		
229	141LR4123A	BRACKET-MOTOR			
				134LR4003C	20110309
230	130LR4004A	GEAR-MOTOR	S45C Φ53*53z		
231	21000S027A	MOTOR-AC	BAG-6302RSI;AC230V 50HzEU		
				21000S040A	20110309
232	021LR1003A	COVER-TAKE UP 2	ABS PA-765 UL94 V-0 PANTON 431		
233	021LR2004A	COVER-TAKE UP,R	ABS 1/16"V-0 FANTONE 431C RS		
234	36400X003A	SWITCH-POWER	电源开关;SRA1001HWBB		

7. Exploded View

7.1 RSH-1151 Exploded View

Frame L

Frame R

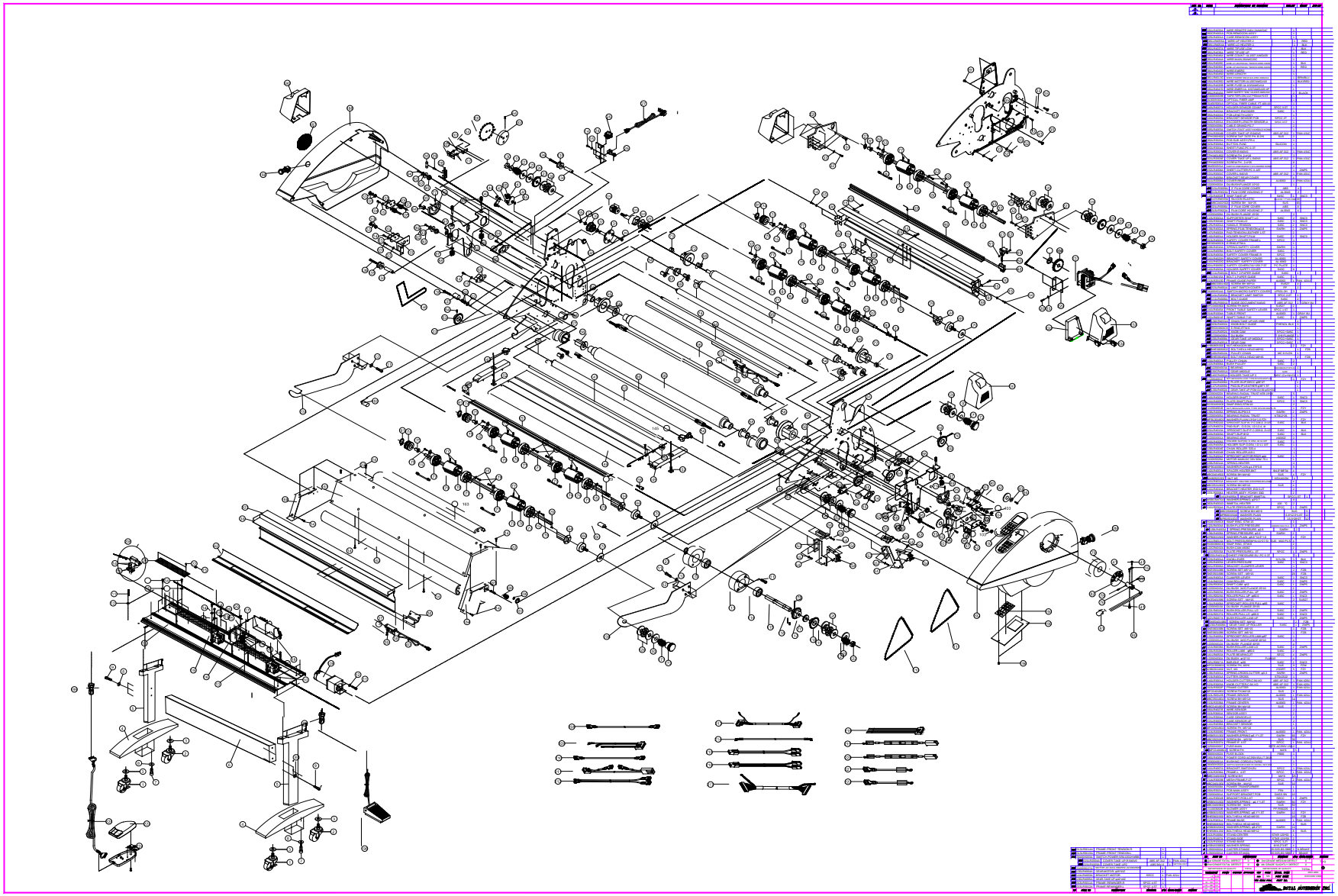
Stand Part and Frame-Base

Frame,Roller and Other View

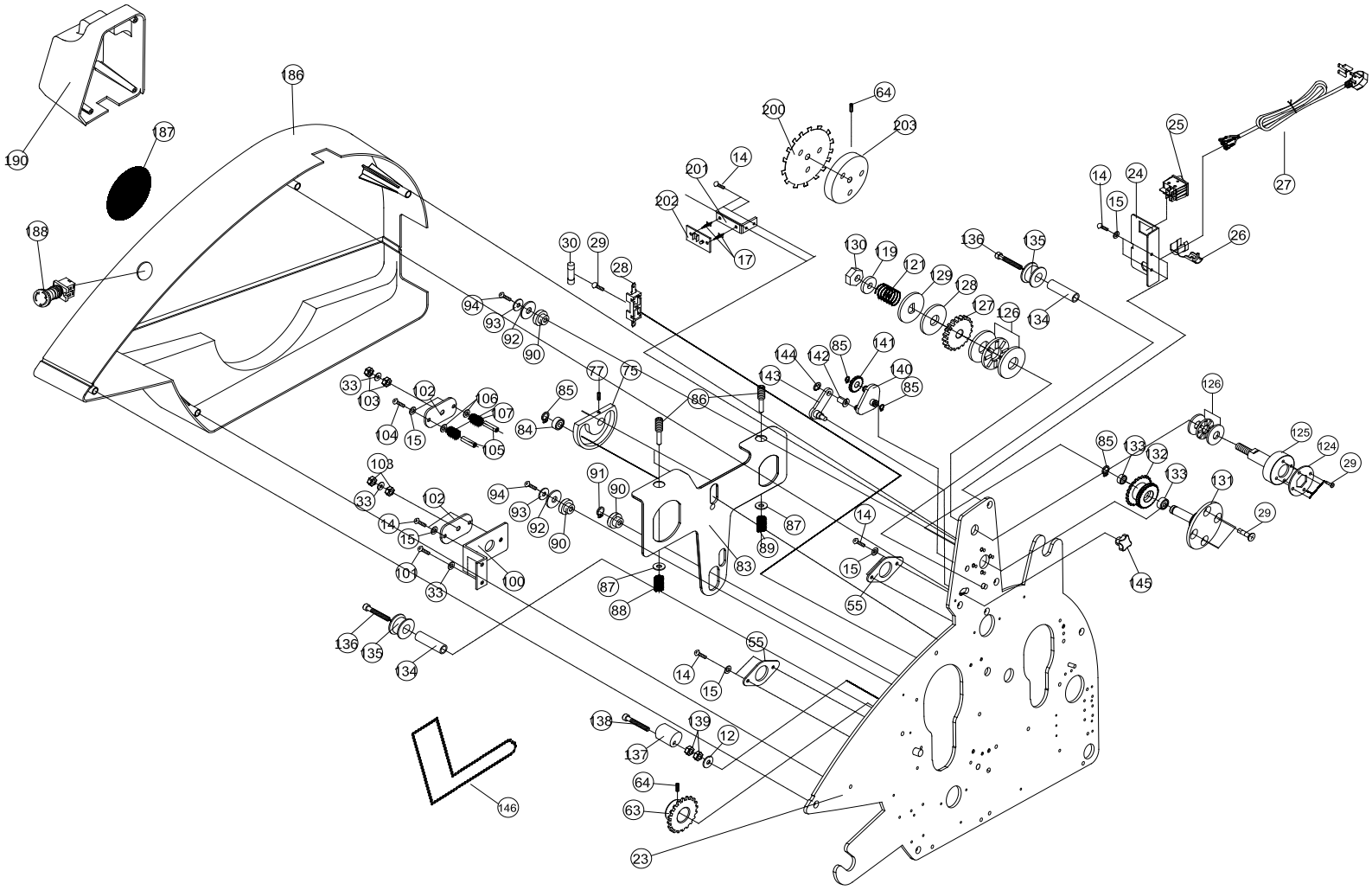
Wire and Options

Front Table、Safety cover and Shaft Films

7.1 RSH-1151 Exploded View

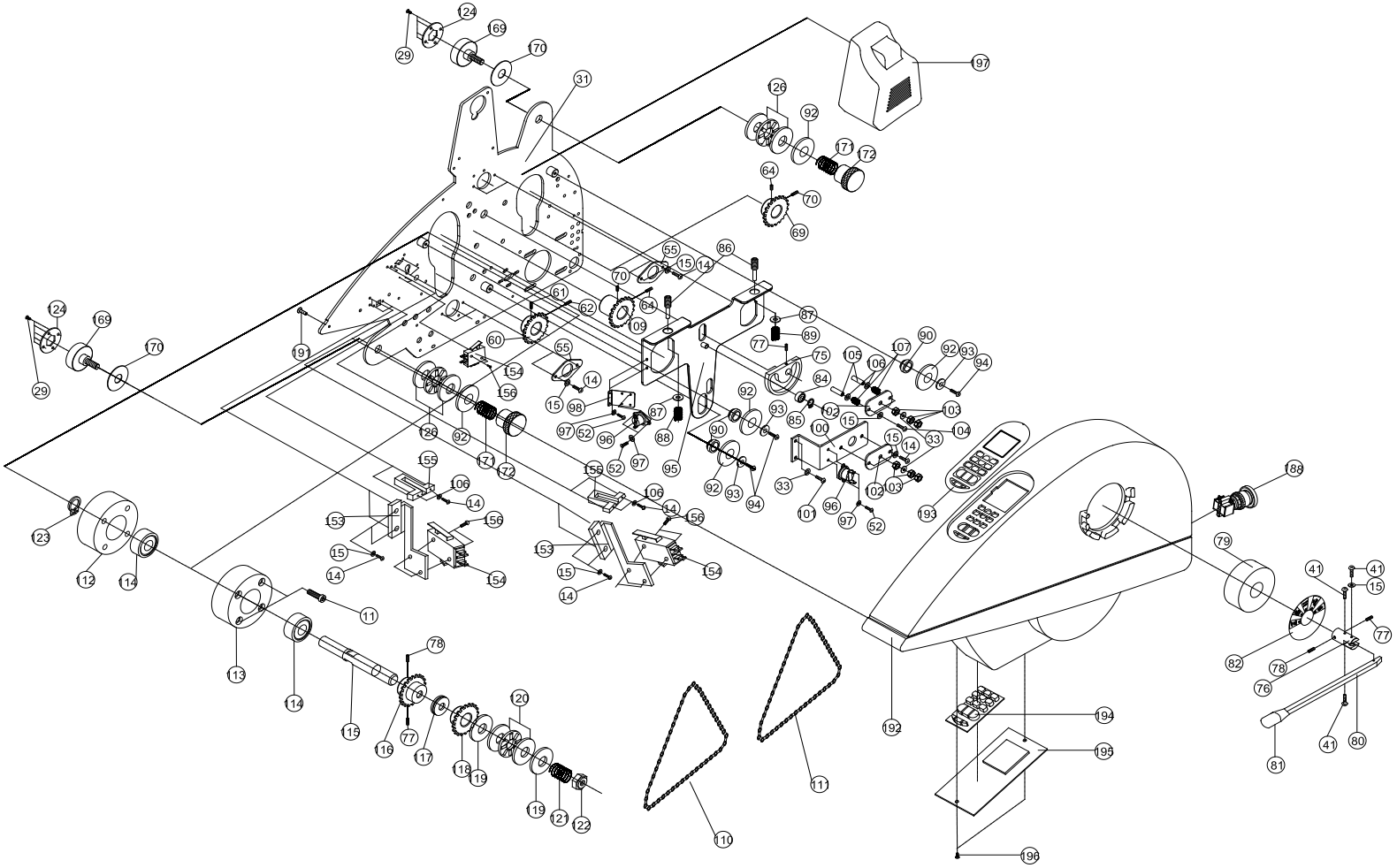


Frame - L



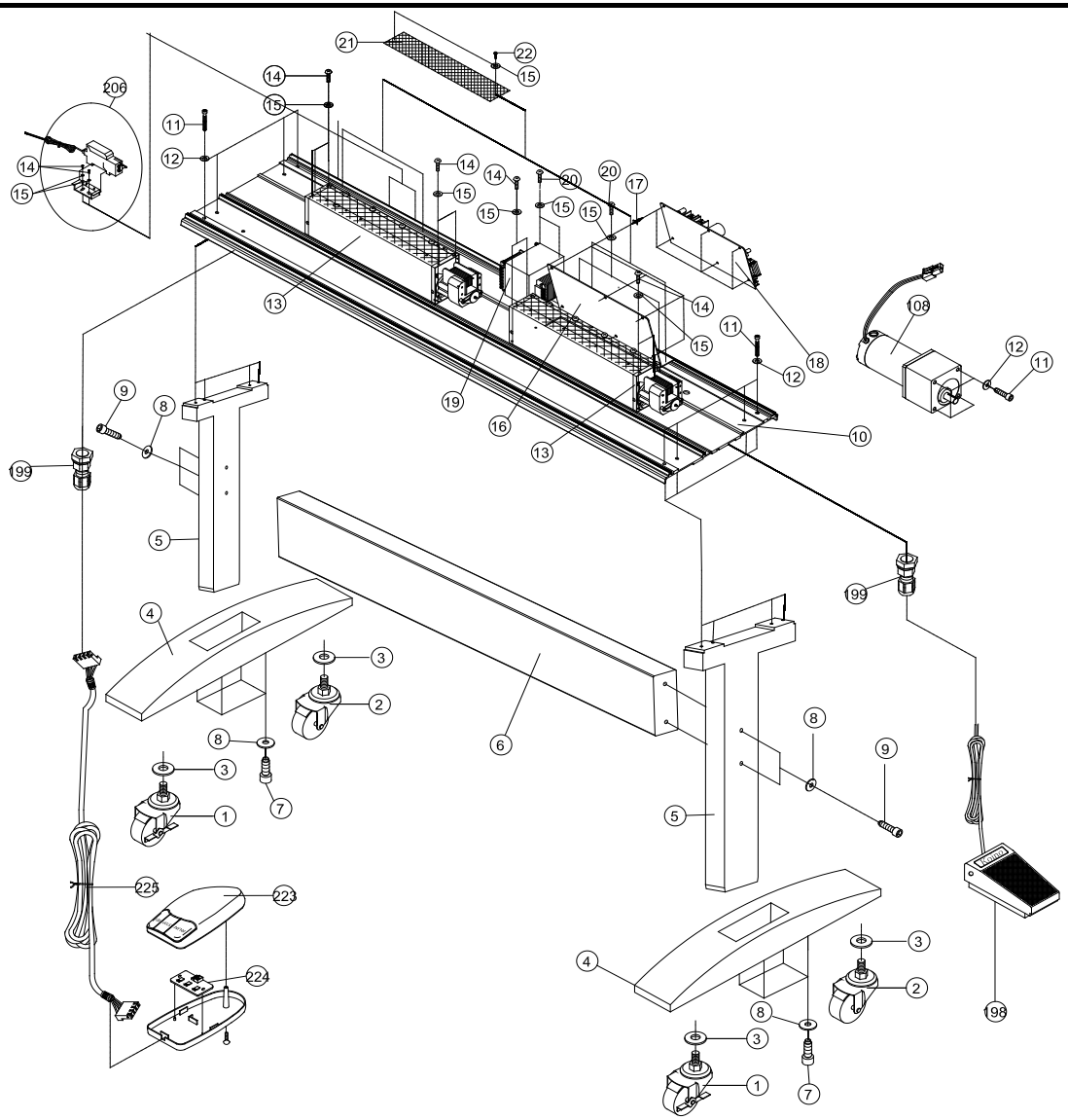
NO	Part N/O	Part Name
12	WSB06015D2	WASHER-SPRING
14	MBC04008D2	SCREW BH
15	WSB04010D2	WASHER-SPRING
17	23200X001A	SUPPORT-BRACKET PCB
23	013LR2036A	FRAME-L
24	141LR4007A	BRACKET-SWITCH,EU
25	36400X002A	SWITCH-MAIN
26	23300X001A	BUSHING-CORD,EU
27	380LR4005A	POWER CORD
28	36600X002A	FUSE BLOCK
29	MFC04008D2	SCREW FH
30	325000X007	FUSE MAIN
33	WSB05013D2	WASHER-SPRING
55	141LR4050A	PLATE-BEARING
63	130LR4008A	GEAR-TAKE UP ROLLER
64	SKED4010B6	SCREW-SET
75	124LR4002A	CAM-ROLLER
77	SKED5015B6	SCREW-SET
83	141LR2003A	PLATE-PRESSURE,L
84	122CR4002A	BUSH-CAM
85	RC000800C8	SNAP RING
86	111LR4014A	BOLT-PRESSURE
87	WPB06015D2	WASHER-PLAIN
88	138LR4008A	SPRING-PRESSURE
89	138LR4003A	SPRING-PRESSURE
90	122LR4004A	BUSH-PLATE PRESSURE
91	RC001500C8	SNAP RING
92	WPB15010D2	WASHER-PLAIN
93	WPB06015A6	WASHER-PLAIN
94	MBC05008D2	SCREW BH
100	141LR4010A	BRACKET-HEATER
101	MBC05010D2	SCREW BH
102	141LR4011A	BRACKET-HEATER,STOPPER
103	NHB05032D2	NUT
104	MBC04045D2	SCREW BH
105	142LR4001A	SPACER-HEATER,BKT
106	WPB04008D2	WASHER-PLAIN
107	138LR4014A	SPRING-HEATER
119	WPB13016D2	WASHER-PLAIN
121	138LR4006A	SPRING-SLIP
124	141LR4005A	PLATE-SHAFT,FILM
125	140LR4002A	HOLDER-SHAFT,T
126	12200X022A	BEARING-RADIAL TRUST
127	130LR4002A	GEAR-TAKE UP
128	147LR4009A	PAD-SLIP
129	141LR4006A	PLATE-SLIP
130	112004001C	NUT
131	140CR4001A	HOLDER-TAKE,UP 2
132	130CR4001A	GEAR-MIDDLE
133	12200X003A	BEARING
134	122LR4006A	BUSH-PULLEY
135	134LR4001A	PULLEY-CHAIN
136	BHE08045D2	BOLT
137	140LR4012A	PULLEY-CHAIN
138	BHE08050D2	BOLT
139	NHB08050D2	NUT
140	141LR4051A	GEAR-CAM
141	130LR4009A	GEAR-TAKE UP MIDDLE
142	12200X035A	DU BUSH
143	141LR4052A	KNOB CAM
144	RE000600C8	E-RING
145	023LR4002A	KNOB-BOLT GUIDE
146	136CR4001A	CHAIN-TAKE UP
186	021LR2001C	COVER-L
187	032LR4008A	SHEET-CUTTER
188	36400X001A	SWITCH-EMERGENCY
190	021LR2003E	COVER-TAKE UP,L
200	010LR4001A	ENCODER-LENGTH SENSOR,A
201	141LR4023A	BRACKET-SENSOR PCB
202	350LR4002A	PCB-LENGTH ASS'Y
203	141LR4024A	BRACKET-ENCODER

Frame - R



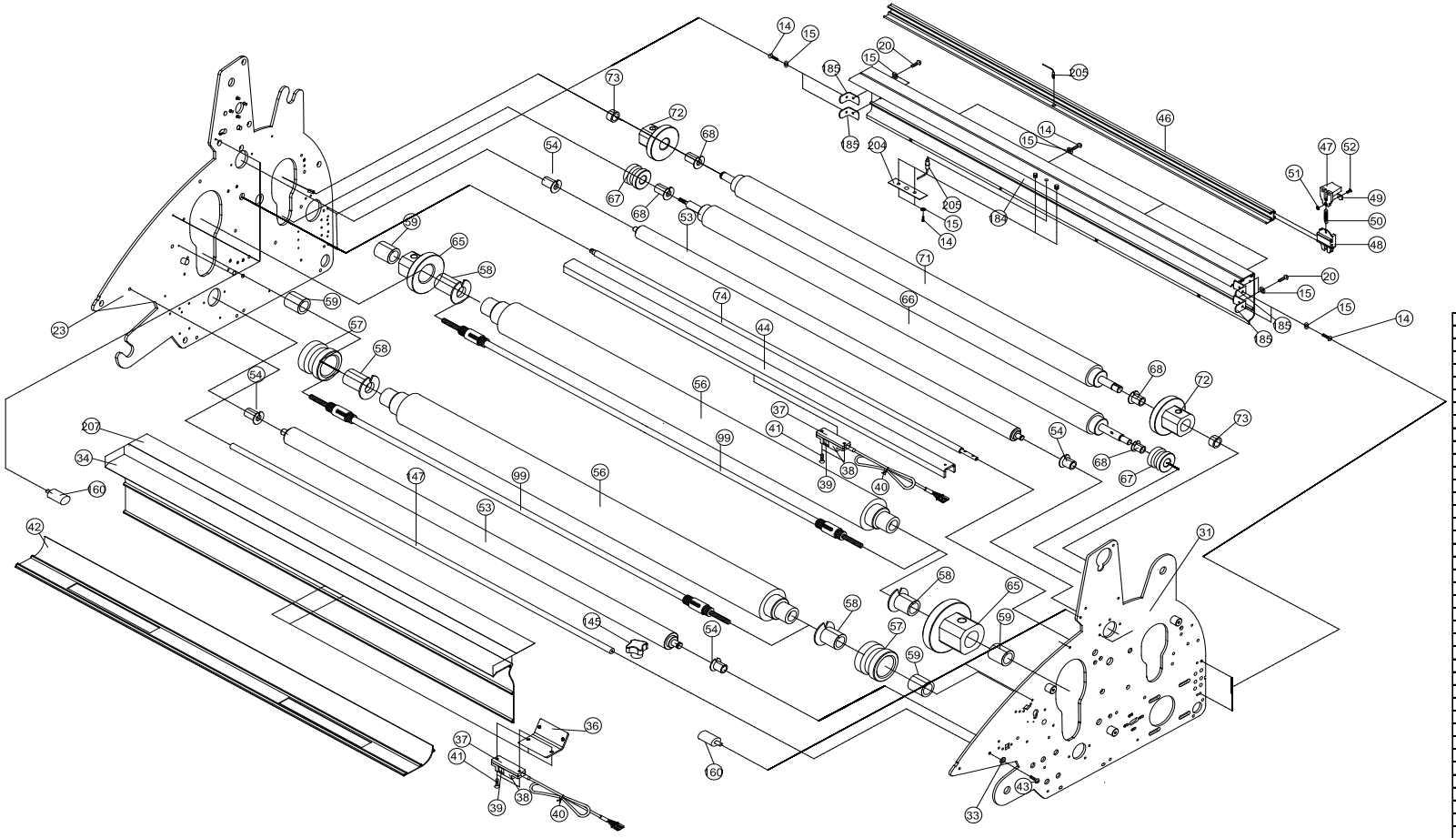
NO	Part N/O	Part Name
11	BHE06020D2	BOLT
14	MBC04008D2	SCREW BH
15	WSB04010D2	WASHER-SPRING
29	MFC04008D2	SCREW FH
31	013LR2037A	FRAME-R
33	WSB05013D2	WASHER-SPRING
41	MBC04018D2	SCREW BH
52	MPC03006D2	SCREW PH
55	141LR4050A	PLATE-BEARING
60	131LR4005A	SPROCKET-ROLLER,LAMI
61	SKE06010B6	SCREW-SET
62	SKE06015B6	SCREW-SET
64	SKE04010B6	SCREW-SET
69	131LR4006A	SPROCKET-ROLLER,PULL
70	SKE04015B6	SCREW-SET
75	124LR4002A	CAM-ROLLER
76	144LR4001A	CLAMPER-LEVER
77	SKE05015B6	SCREW-SET
78	SKE05010B6	SCREW-SET
79	021LR3006A	BRACKET-CLAMPER LEVER
80	125LR4003A	LEVER-PRESSURE
81	023LR4001A	KNOB-LEVER
82	032LR4011A	SHEET-PRESSURE,EU
84	122CR4002A	BUSH-CAM
85	RC000800C8	SNAP RING
86	111LR4014A	BOLT-PRESSURE
87	WPB06015D2	WASHER-PLAIN
88	138LR4008A	SPRING-PRESSURE
89	138LR4003A	SPRING-PRESSURE
90	122LR4004A	BUSH-PLATE PRESSURE
92	WPB15010D2	WASHER-PLAIN
93	WPB06015A6	WASHER-PLAIN
94	MBC05008D2	SCREW BH
95	141LR2004A	PLATE-PRESSURE,R
96	363LR4001D	BIMETAL-HEATER
97	WSB03007D2	WASHER-SPRING
98	141LR4055A	BRACKET-BIMETAL
100	141LR4010A	BRACKET-HEATER
101	MBC05010D2	SCREW BH
102	141LR4011A	BRACKET-HEATER,STOPPER
103	NHB05032D2	NUT
104	MBC04045D2	SCREW BH
105	142LR4001A	SPACER-HEATER,BKT
106	WPB04008D2	WASHER-PLAIN
107	138LR4014A	SPRING-HEATER
109	131LR4004A	SPROCKET-MOTOR
110	136LR4004B	CHAIN-ROLLER
111	136LR4004E	CHAIN-ROLLER
112	140LR4005A	HOLDER-SLIP
113	140LR4006A	HOLDER-SLIP(IN)
114	12200X001A	BEARING-IDLE
115	120LR4003A	SHAFT-SLIP
116	131LR4013A	SPROCKET-SLIP
117	147LR4007A	PAD-SLIP
118	131LR4014A	SPROCKET-SLIP IN
119	WPB13016D2	WASHER-PLAIN
120	12200X005A	BEARING-RADIAL TRUST
121	138LR4006A	SPRING-SLIP
122	112004001B	NUT
123	RC001000C8	SNAP-RING
124	141LR4005A	PLATE-SHAFT,FILM
126	12200X022A	BEARING-RADIAL TRUST
153	141LR4045A	BRACKET LIMIT SWITCH
154	36400X014A	SWITCH-MICRO SAFETY COVER
155	021LR4001A	LIMIT SWITCH COVER
156	MBC03014D2	SCREW BH
169	140LR4001A	HOLDER-SHAFT,FILM
170	147LR4002A	PAD-TENSION
171	138LR4002A	SPRING-FILM,TENSION
172	125LR4001A	HANDLE-TENSION
188	36400X001A	SWITCH-EMERGENCY
190	021LR2003E	COVER-TAKE UP,L
192	021LR2002A	COVER-R
193	032LR3004A	SHEET-FUNC
194	023LR3006A	BUTTON-FUNC
195	350LR3022A	PCB-SUB ASS'Y
196	TPH03006D2	SCREW,TAP TITE PH
197	021LR2004B	COVER-TAKE UP,R

Stand Part and Frame - Base



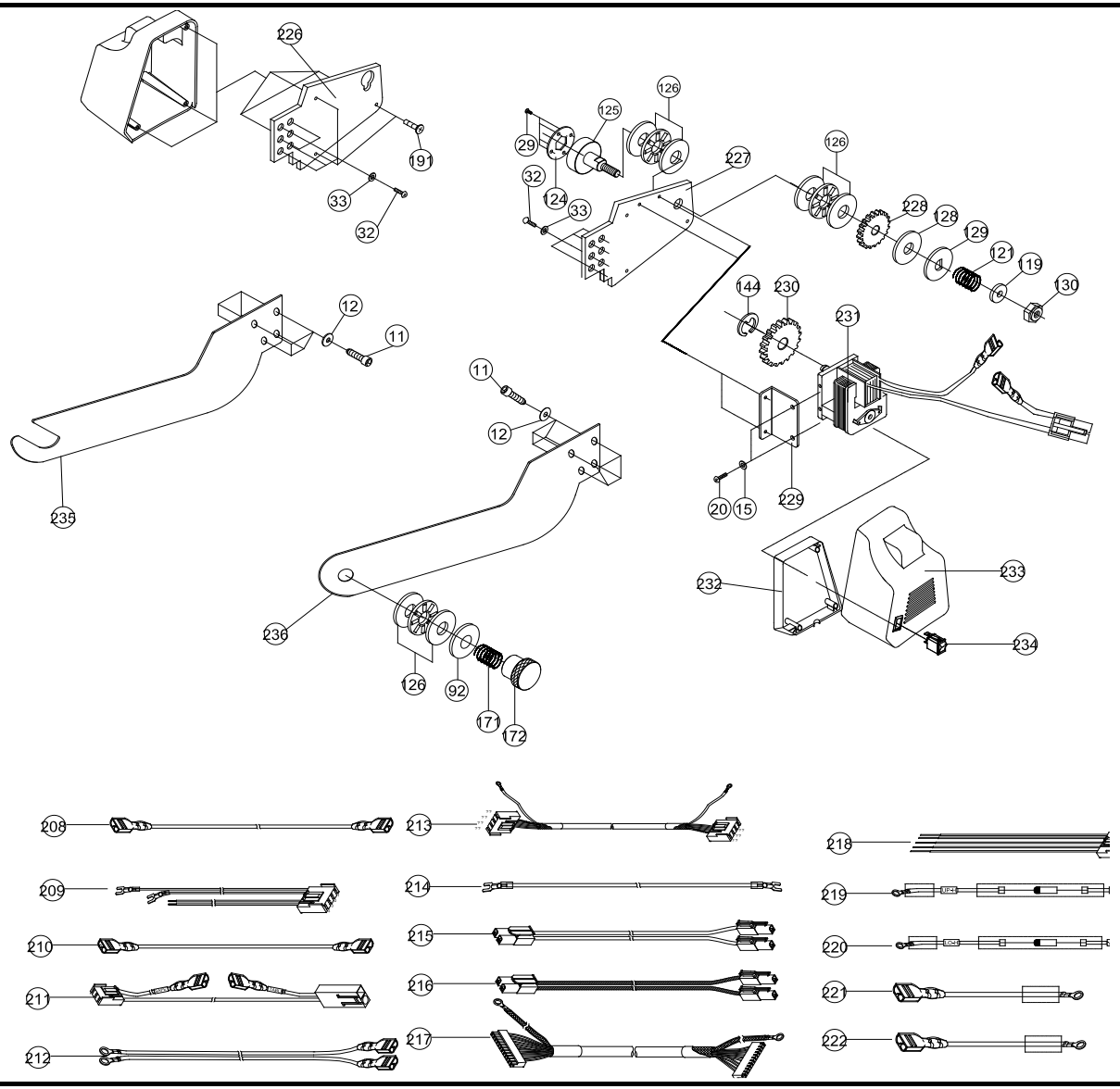
NO	Part N/O	Part Name
1	13500X001A	CASTER-STAND1
2	13500X002A	CASTER-STAND2
3	WSB16038D0	WASHER-SPRING
4	212LR1004A	STAND-BASE
5	212LR1007A	STAND-SIDE
6	212LR1006A	STAND-CENTER
7	BHE08012D2	BOLT
8	WSB08020D2	WASHER-SPRING
9	BHE08065D2	BOLT
10	013LR3031A	FRAME-BASE
11	BHE06020D2	BOLT
12	WSB06015D2	WASHER-SPRING
13	211003002B	BLOWER-ASS'Y
14	MBC04008D2	SCREW BH
15	WSB04010D2	WASHER-SPRING
16	141LR3001B	BRACKET-PCB
17	23200X001A	SUPPORT-BRACKET PCB
18	350LR3021A	PCB-MAIN ASS'Y
19	34000S008A	POWER TRANSFORMER
20	MBC04010D2	SCREW-BH
21	214LR3003B	MESH-FRAME,F
22	MBC04006D2	SCREW BH
108	21000S029A	MOTOR-MAIN
198	365LR4003A	SWITCH-FOOT ASS'Y
199	23300X008A	CABLE-GRAND
206	31300S002A	OPTICAL FIBER AMP
223	025LR4001A	CASE-REMOCON ASS'Y
224	350CR4001A	PCB-REMOCON ASS'Y
225	381LR4032A	WIRE-REMOTE

Frame, Roller and Other View



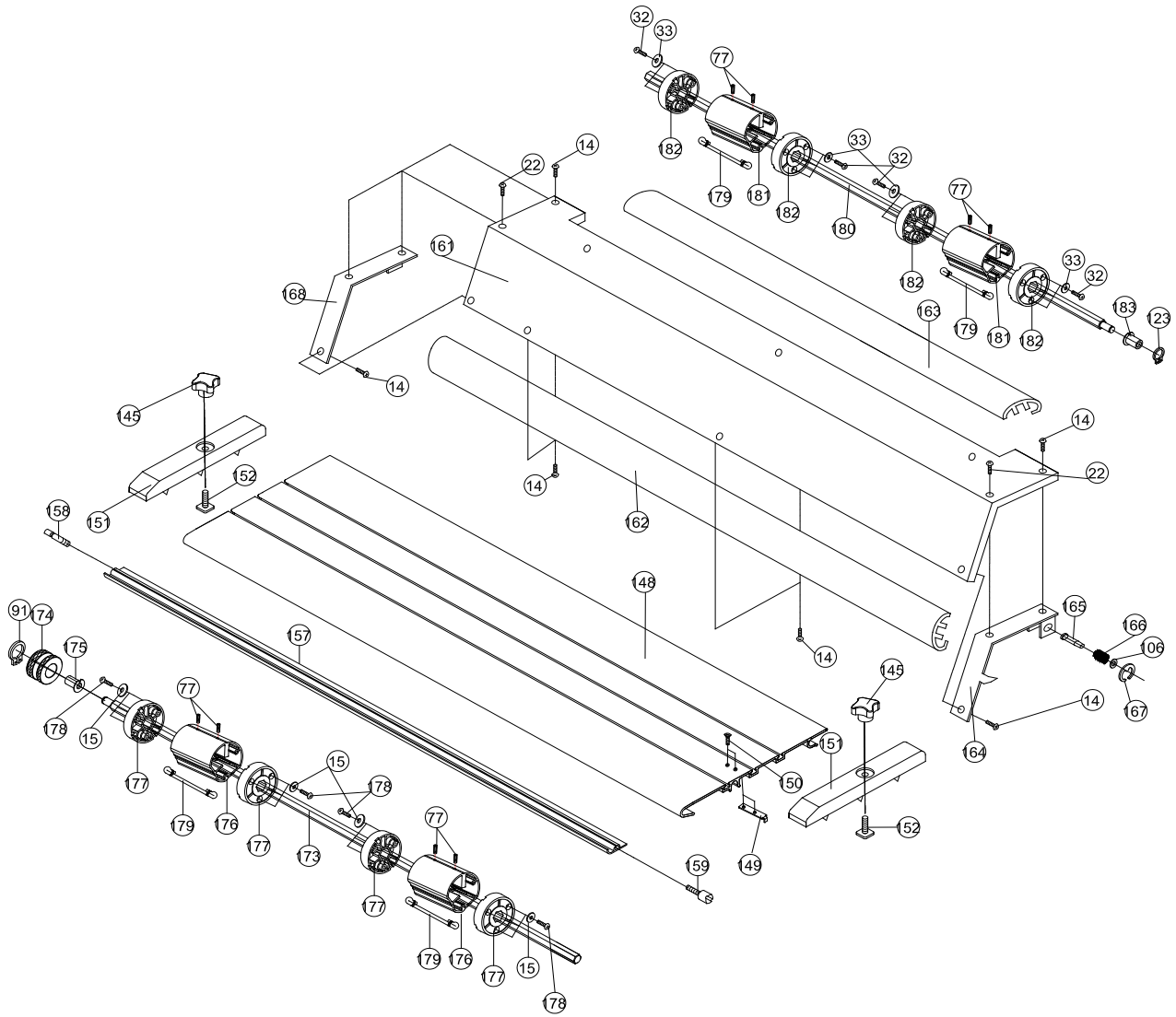
NO	Part N/O	Part Name
14	MBC04008D2	SCREW BH
15	WSB04010D2	WASHER-SPRING
20	MBC04010D2	SCREW-BH
23	013LR2036A	FRAME-L
31	013LR2037A	FRAME-R
33	WSB05013D2	WASHER-SPRING
34	013LR2009D	FRAME-FRONT
36	141LR4036A	BRACKET-SENSOR
37	021LR3003A	CASE-SENSOR,UP
38	021LR3004A	CASE-SENSOR,LO
39	313LR3001A	SENSOR-ASS'Y
40	381LR4027E	WIRE SENSOR
41	MBC04018D2	SCREW BH
42	013LR2038A	FRAME-CENTER
43	MBC05018D2	SCREW BH
44	013LR2012B	FRAME-SENSOR
46	013LR3002F	FRAME-CUTTER
47	023LR3003A	KNOB-CUTTER,C
48	140LR3001A	HOLDER-CUTTER,C
49	213LR4001A	CUTTER-CROSS
50	138LR4001A	SPRING-CROSS,CUTTER
51	NHB03024D2	NUT
52	MPC03006D2	SCREW PH
53	015LR3007A	BAR-IDLE
54	12200X032A	DU BUSH
56	133LR2026A	ROLLER-LAMI
57	122LR4008A	BUSH-ROLLER,LAMI LO
58	12200X012A	DU BUSH
59	12200X014A	DU BUSH
65	122LR4007A	BUSH-ROLLER,LAMI UP
66	133LR2027A	ROLLER-PULL,LO
67	122LR4010A	BUSH-ROLLER,PULL LO
68	12200X013A	DU BUSH
71	133LR2028A	ROLLER-PULL,UP
72	122LR4009A	BUSH-ROLLER,PULL UP
73	12200X015A	DU BUSH
74	120LR3001C	SHAFT-CAM
99	223LR2008A	HEATER ASS'Y
145	023LR4002A	KNOB-BOLT GUIDE
147	120LR4001E	SHAFT-TABLE
160	140LR4003A	HOLDER-SAFETY COVER
184	011LR2006A	COVER-REAR
185	141LR4009A	BRACKET-REAR COVER
204	140LR4007A	HOLDER-SENSOR COUNT
205	31400S001A	OPTICAL FIBER CABLE
207	24000X003B	TAPE-TEFLON

Wire and Options



NO	Part N/O	Part Name
11	BHE06020D2	BOLT
12	WSB06015D2	WASHER-SPRING
15	WSB04010D2	WASHER-SPRING
20	MBC04010D2	SCREW-BH
29	MFC04008D2	SCREW FH
32	MBC05030D2	SCREW BH
33	WSB05013D2	WASHER-SPRING
92	WPB15010D2	WASHER-PLAIN
119	WPB13016D2	WASHER-PLAIN
121	138LR4006A	SPRING-SLIP
124	141LR4005A	PLATE-SHAFT,FILM
125	140LR4002A	HOLDER-SHAFT,T
126	12200X022A	BEARING-RADIAL TRUST
128	147LR4009A	PAD-SLIP
129	141LR4006A	PLATE-SLIP
130	112004001C	NUT
144	RE000600C8	E-RING
171	138LR4002A	SPRING-FILM,TENSION
172	125LR4001A	HANDLE-TENSION
191	TFH04018D2	SCREW FH
208	381LR4043A	WIRE-SAFETY S/W
209	381LR4047D	WIRE-EMER
210	381LR4020B	WIRE-FUSE
211	381LR4035D	WIRE-MOTOR
212	381LR4013G	WIRE-POWER S/W
213	381LR4045D	WIRE-LENGTH
214	381LR4042D	WIRE-EMER2
215	381LR4030C	WIRE-UP HEATER
216	381LR4029C	WIRE-LO HEATER
217	381LR4044A	WIRE-MAIN
218	381LR4046A	WIRE-COUNT
219	381LR4036A	WIRE-T/FUSE UP
220	381LR4037A	WIRE-T/FUSE LOW
221	381LR4054A	WIRE-LO HEATER 2
222	381LR4055A	WIRE-UP HEATER 2
226	013LR3012A	FRAME-REWINDER,L
227	013LR3011A	FRAME-REWINDER,R
228	130LR4005A	GEAR-TAKE UP
229	141LR4003A	BRACKET-MOTOR
230	130LR4004A	GEAR-MOTOR
231	21000S027A	MOTOR-AC
232	021LR1003A	COVER-TAKE UP 2
233	021LR2004A	COVER-TAKE UP,R
234	36400X003A	SWITCH-POWER
235	013LR3015A	FRAME-FRONT TENSION L
236	013LR3014A	FRAME-FRONT TENSION R

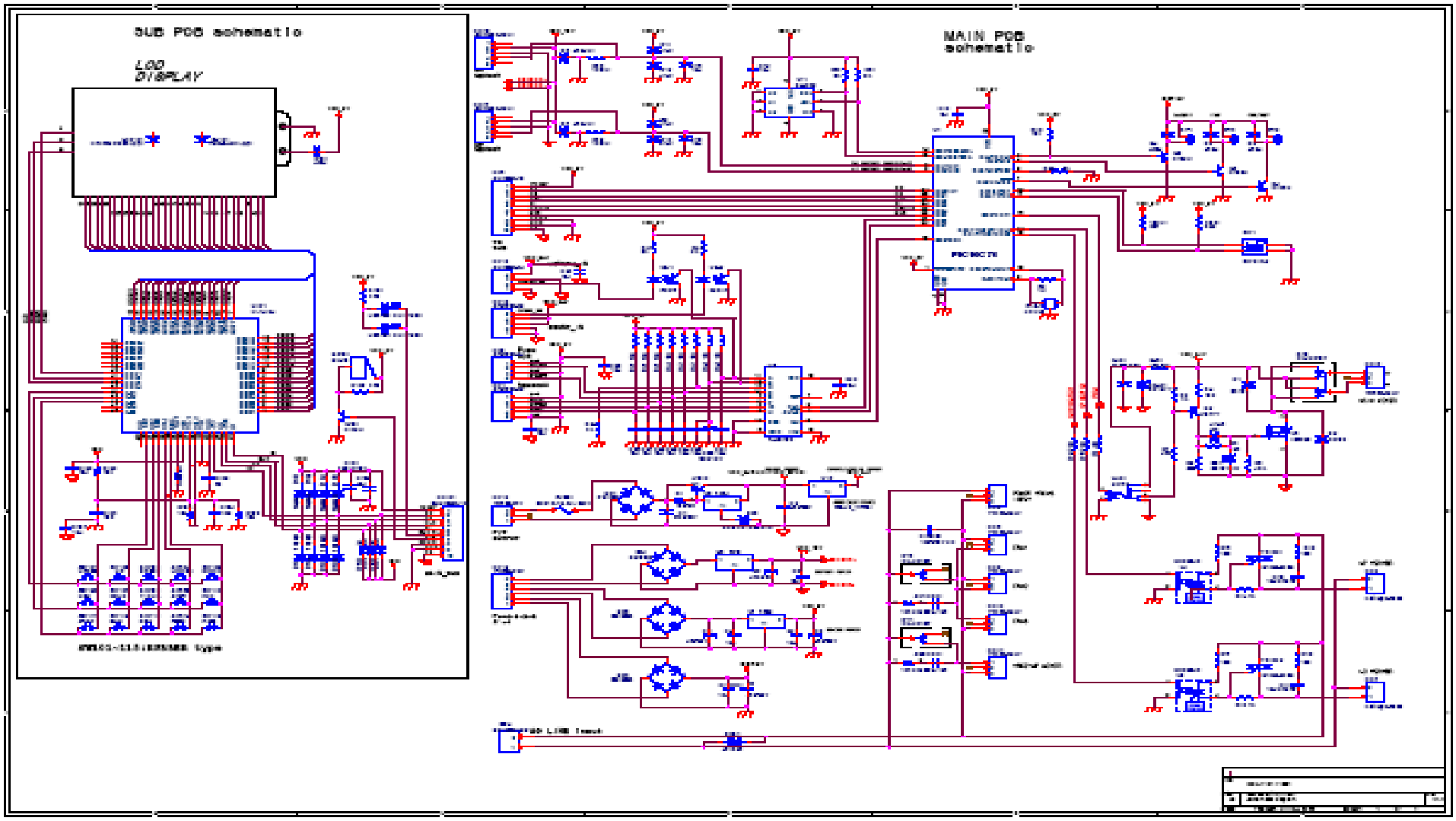
Front Table、Safety Cover and Shaft Films



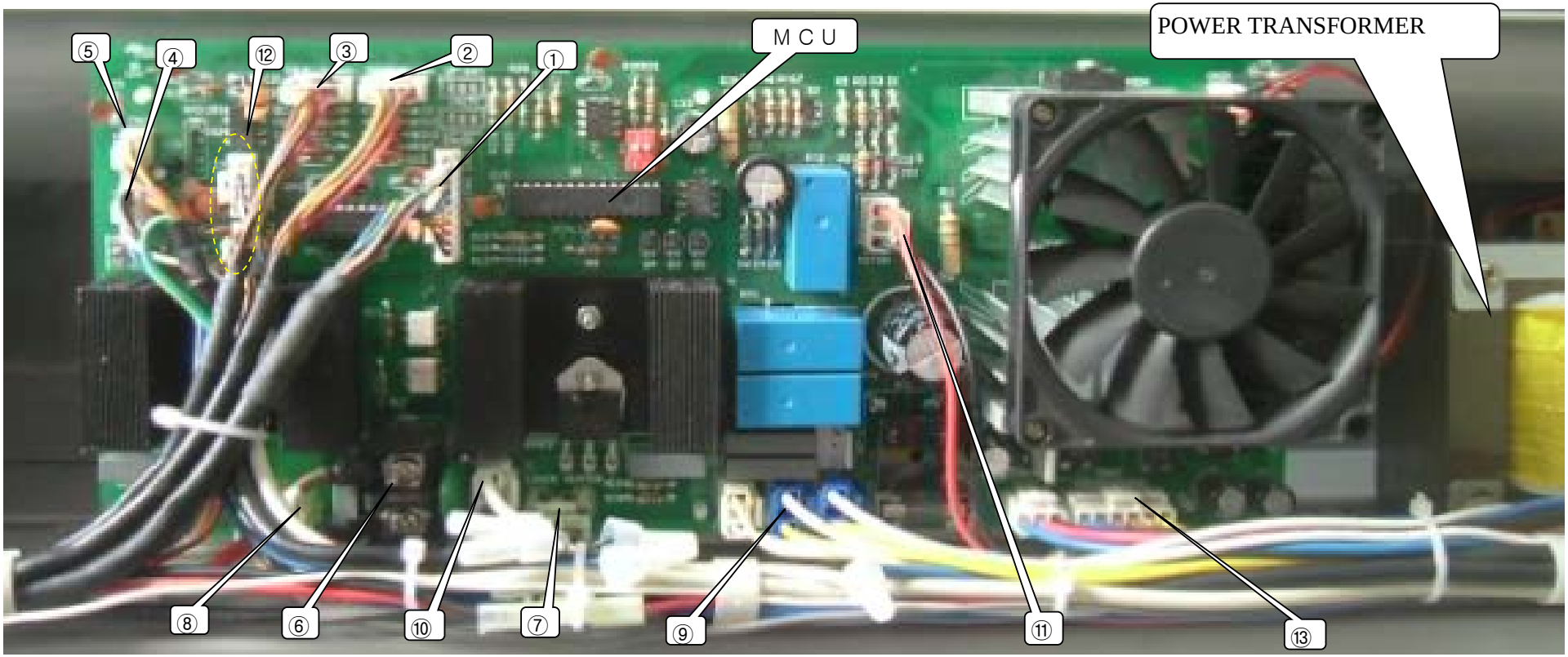
NO	Part NO	Part Name
14	MBC04008D2	SCREW BH
15	WSB04010D2	WASHER-SPRING
22	MBC04006D2	SCREW BH
32	MBC05030D2	SCREW BH
33	WSB05013D2	WASHER-SPRING
77	SKE05015B6	SCREW-SET
91	RC001500C8	SNAP RING
106	WPB04008D2	WASHER-PLAIN
123	RC001000C8	SNAP-RING
145	023LR4002A	KNOB-BOLT GUIDE
148	014LR1004A	TABLE-FRONT
149	141LR4043A	FRONT TABLE SAFETY LEVER
150	MFC04006D2	SCREW FH
151	145LR3001A	GUIDE-DOCUMENT
152	111LR4006A	BOLT-GUIDE
157	013LR2013D	FRAME-GUIDE,PAPER
158	111LR4015A	BOLT 1-PAPER GUIDE
159	111LR4016A	BOLT 2-PAPER GUIDE
161	021LR3005D	SAFETY COVER
162	141LR4022G	BRACKET-SAFETY COVER
163	141LR4022H	BRACKET-SAFETY COVER
164	013LR4003A	SAFETY COVER FRAME-R
165	111LR4009A	BOLT-SAFETY COVER
166	138LR4010A	SPRING-SAFETY COVER
167	RE000400C8	E-RING
168	013LR4002A	SAFETY COVER FRAME-L
173	120LR3004D	SHAFT-FILM,LO
174	143LR3001A	SUPPOTER-SHAFT,LO
175	12200X009A	DU BUSH
176	013LR3022A	FILM CORE HOUSING 2"
177	021LR3008A	2" FILM CORE COVER
178	MBC04025D2	SCREW BH
179	147CR4003A	SILICON ELASTIC
180	120LR4002E	SHAFT-TAKE,UP
181	013LR3023A	FILM CORE HOUSING 3"
182	021LR3009A	3" FILM CORE COVER
183	12200X002A	DU BUSH

8. RSH-1151 Wiring Diagram

RSH-1151 Wiring Diagram



<RSH-1151 Main PCB Layout >

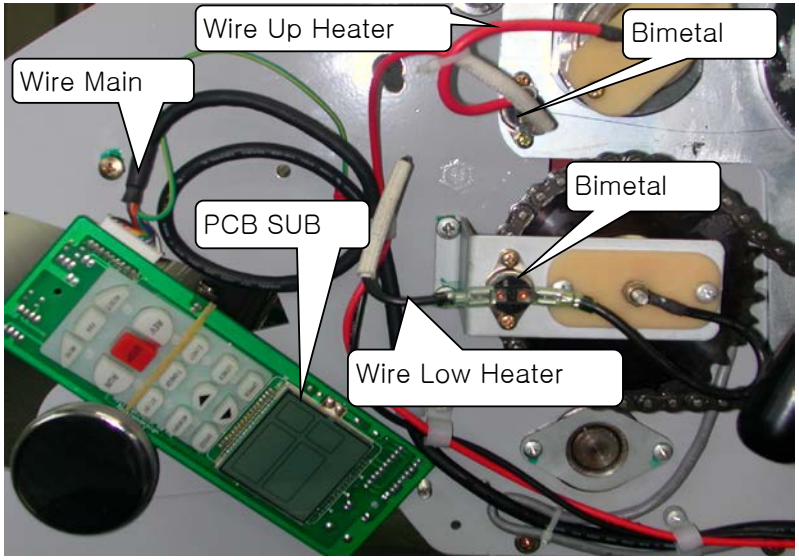


1. Wire Main.
2. Wire Sensor Up
3. Wire Sensor Low
4. Wire Count
5. Wire Length
6. Wire Power
7. Wire Low Heater

<Connect part>

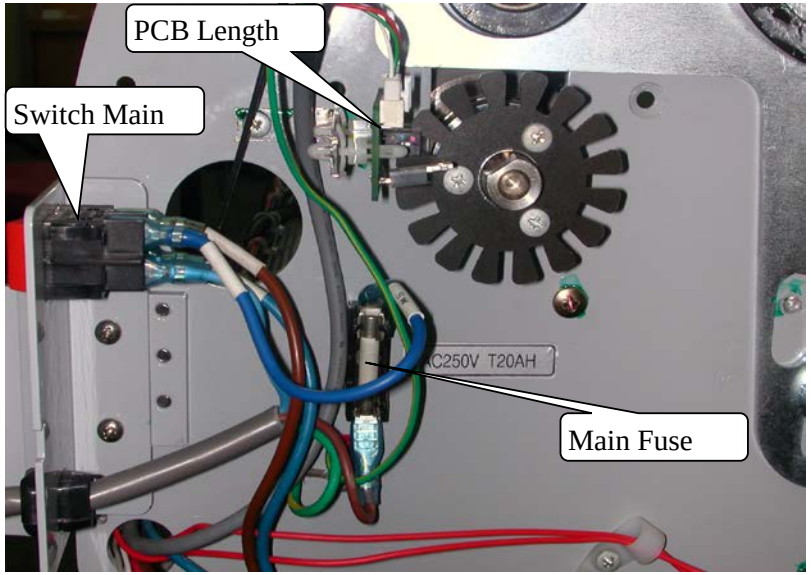
8. Wire Up Heater.
9. Wire Blower(3EA)
10. Power Transformer wires
11. Motor wires
12. Remote Control and Foot Pedal wires.
13. Wires Output Transformer

<SUB PCB and Frame-R Heater Layout>

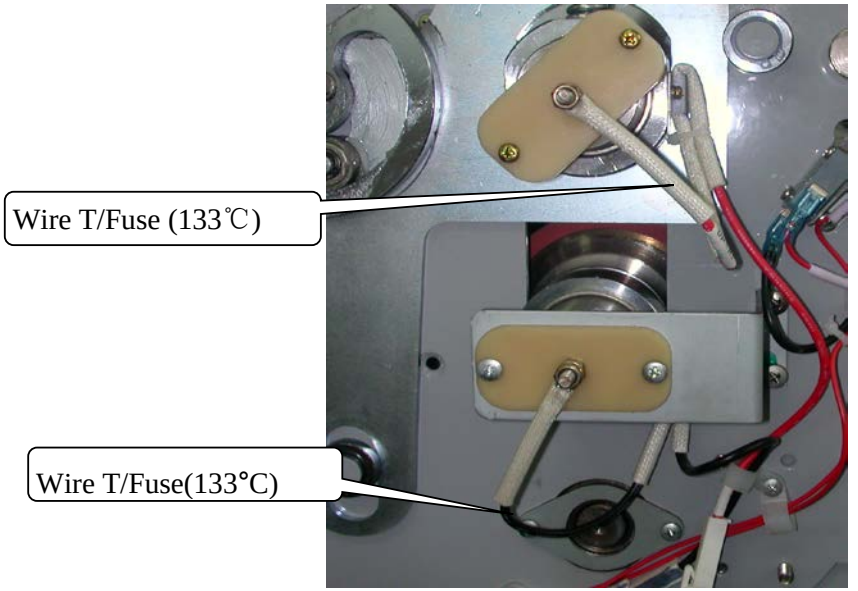


<Length Layout>

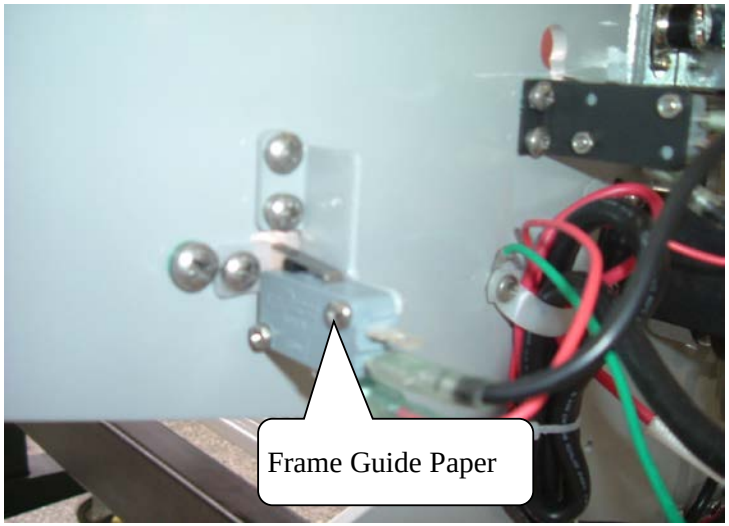
<Main S/W and Count Layout>

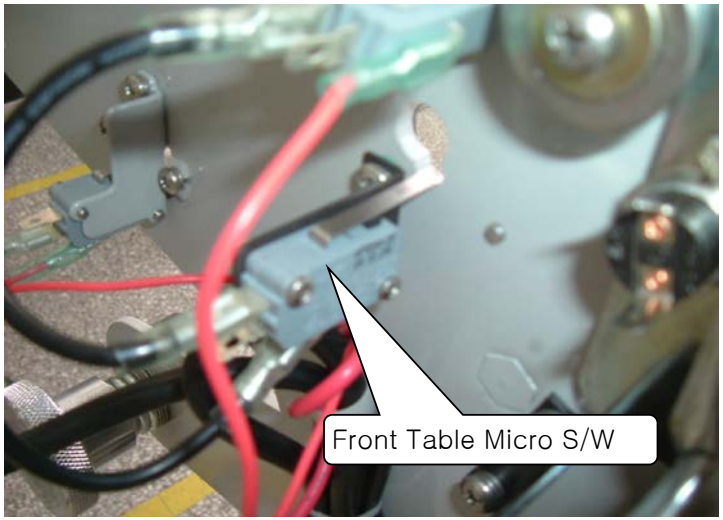


<Micro S/W and Frame-L Heater Layout>



<Micro S/W >


Frame Guide Paper


Front Table Micro S/W

Safety Cover Micro S/W

Safety Cover Micro S/W